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VOLUME III

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AS the biographer of Columbus, realizing that 'most biographies of The Admiral might well be entitled "Columbus to the Water's Edge," 'Samuel Eliot Morison undertook to follow the track of his subject across the Atlantic under sail. Similarly as historian of naval operations, charged by the Secretary of the Navy with the task of gathering the pertinent facts and preparing therefrom a history of the United States Navy during the present war, Lieutenant Commander Morison has gone, not to the water's edge, but to sea and into action. His account of the landing at Fedhala, Morocco, five months ago is a first hand narrative of that portion of the great amphibious operation in which he participated. It appears with propriety in The American NEPTUNE because it tells the story of an episode in American maritime history, which is still being made. It is a tribute to Lieutenant Commander Morison's extraordinary vigor and imagination that his narrative presents so vivid a picture, even though, for reasons of security, the homely and specific details, which he ordinarily uses to telling purpose, are necessarily omitted.

Although the war has contributed to the subject matter of the present issue it has detracted from its size. The War Production Board has instructed publishers to reduce their use of paper by ten per cent, and the Editors have complied by cutting the number of pages from ninety-six to eighty-eight and by printing a somewhat smaller edition than has been customary. These steps have been taken with regret, as they entail a proportionate delay in the publication of articles already accepted. However, in view of the greatly reduced size of recent issues of The Mariner's Mirror, the Editors feel extremely fortunate that in the second year of the war it is still possible to print as much, and with no loss in the permanent quality of the paper.

The Editors appreciate also the splendid way in which contributors, in spite of pressing wartime duties, have continued to submit material for publication in steadily increasing quantity. The supply of lines and sail plans is necessarily somewhat restricted, as the preparation of these drawings is long and laborious and few of the naval architects and draughtsmen who possess both the historical knowledge and manual dexterity necessary for their execution have the time to give. The devotion of Mr. Edward G. Brownlee of Philadelphia, a member of the Editorial Advisory Board, who has, in the scant leisure remaining from taxing shipbuilding duties, prepared the lines that illustrate Mr. Phelps Soule's article on the Hampton Boat, is consequently particularly appreciated. Mr. Brownlee has also prepared a beautiful series of flag charts, which will be published in the July issue as illustrations to an article by Lieutenant Brewington on signal books and the uses of signal flags in identifying ship pictures.

The Landing at Fedhala, Morocco November 8, 1942

BY SAMUEL ELIOT MORISON

UR task force departed from several different American bases, at different times, and made rendezvous in mid-ocean; when all together we covered a space of ocean many miles wide and many more long. The Germans had a few score U-boats out looking for us, but we successfully eluded the lot, and thus conserved the element of surprise which was one of our outstanding assets. Cynics have doubted whether military and naval men are capable of keeping a secret; but in this instance the several hundred officers and civilian officials, in this country and England, who had to know what was going on, actually did keep silence, so that the Axis powers were completely mystified as to where this great fleet was going. If one of these men had tattled, the resistance might easily have been tenfold as serious as we found it, and our task might have taken sixty days' fighting instead of three.

On the way over the weather was magnificent and not so rough as to disturb the stomachs of tough, hardened young men. We knew we were going into battle on a certain day, and as we were also told of the great importance and significance of our enterprise, high were the expectations. Yet our vast force of many thousand sailors, soldiers and aviators, was far from being over-confident, or puffed up with that hubris which brings down the wrath of the gods. With the attack plan there was circulated a list of a dozen 'assumptions'—things that might happen to us. Night attacks on transports by enemy subs, light surface craft or motor torpedo boats; and we knew the French Navy had ample forces in Casa-

For reasons of security, names of ships and of senior naval officers mentioned in this article are fictitious. Lieutenant Commander Morison's history of naval operations, which will be published after the war, will contain the true names, and the Neptune will also publish them at the appropriate time when they are released by the Navy Department.

¹ Lieutenant Commander Samuel Eliot Morison's account of the landing at Fedhala is reprinted by permission from the March 1943 issue of *The American Foreign Service Journal*. Although it is the policy of the Neptune to publish only original material, the interest of this article, and the comparatively restricted professional circulation of the *Journal* in which it appeared last month, warranted an exception to this general rule.

blanca. Surf so heavy that we couldn't land troops, and would have to run out to sea again to avoid U-boats, and then perhaps run out of fuel; or surf heavy enough to drown a large number of men if we tried to land them. Spain might come in on the Axis side. Almost anything might happen. Yet, all in all, we feared our own mistakes, the thousand and one ways the landing might be botched, more than we feared the enemy; and we feared the weather, and being late, more than either. Morocco has an ironbound coast, with a very few beaches possible to land troops on, and those beaches are so exposed to the ocean swells that breaking waves ten to fifteen feet high are not uncommon in November. Most of these beaches were under the protection of strong shore batteries. Hence the landings must be made at night, when surf is most dangerous to boats. Indeed so many chances were taken that, if the breaks had gone against us or, as one Admiral stated in his report, if Divine Providence had not been on our side, those who planned the West African expedition would probably by now be branded as incompetents, lunatics, and murderers.

On Wednesday, the fourth of November, with the landing day only a few days off, the wind rises to gale force and seas run so high that the mighty cruiser on which I sail is rolling 30 degrees. Our weather man's face is as long as his chart, for the Washington weather predictions are pessimistic. It looks as though we were in for a heavy swell and a hard norther. By Friday the sixth things look much better, the wind has moderated and the sea is going down. This morning we see the last of the old moon. Saturday the seventh, our last day at sea, breaks fair. The sea has gone down still more, the sky is clouding up—a good sign, for we want it

dark tonight.

Our mighty fleet begins to split up. The Southern Attack Group destined for Safii peels off, the commander sending us this greeting: 'Keep your eyes on the sky and your ears on the sea.' The Carrier Group lingers behind to act as air bases over the horizon from Africa; the Support Group of big, powerful ships hovers offshore, ready to rush in and bomb Casablanca or perform whatever mission the Task Force Commander may assign. Finally we part with the Northern Attack Group, destined for Port Lyautey, and our Center Attack Group destined for Fedhala assumes its final approach formation.

A squadron of minesweepers leads us into glory or disaster, only the gods know which. Then comes the outer screen of destroyers, patroling vigilantly around the entire fleet. Next the guide, a queenly heavy cruiser, and parallel to her, on the other flank, the scrappy light cruiser *Cambridge*, my ship. We lead the columns of the transports, whose names read like a

roll of American history, called as they are after founding fathers and famous generals. Finally, far in the rear steams the little minelayer *Leila*. A modest Philadelphia-Norfolk steamboat before the war, she carries her cargo of T.N.T. mines very ill at ease, rolling heavily. The transport commander called her *Leila the Lethal* and cheerfully cautioned her to keep a good distance from his transports lest she blow them all up.

Sunset at 5:45, enough stars to fix our position, we are right on top of our destination, and a due South course should bring us off Cape Fedhala

by midnight.

Several hours later: 'Palinurus' Paine, the incomparable navigator of the *Cambridge*, announces that we are nearing the African coast. The critical hour is drawing near. Captain Compton summons the Chaplain to the blacked-out bridge and says, 'Padre: I think we ought to have a prayer before we go in and fight. Now, I'm not a praying man myself, but here's the sentiment I want to put into language appropriate for the Almighty: "O Lord, gangway for a fighting ship and a fighting crew!" 'Aye, Aye, Sir!' says Father O'Leary, and offers a sailorman's prayer while we stand by with bared heads.

Two hours later: The hoarse alarm of General Quarters summons everyone to his battle station, where he is destined to remain, on our ship, for fifteen hours.

Nearly midnight: the Flagship signals STOP, and the transports coast into their pre-determined unloading positions off Cape Fedhala, eight minutes in advance of schedule. Before eight bells usher in 8 November, we can hear a faint clank and clash from the transports as the first steel landing boats are lowered into the ocean.

South of us but invisible, is the coast of 'High Barbaree,' and beyond that the Atlas, the Sahara, Egypt. . . . Africa was never so dark and mysterious to ancient sea-rovers as she seems tonight, veiled in clouds and hushed in slumber. Not a light gleams, not a dog barks, but the wind is off-shore and the smell of the land comes out to us, a scent of charcoal smoke and of parched dry grass. 'Africa! there's Africa!' we say to each other. So long and anxiously have we been looking forward to this landfall that the very word makes us tingle down the spine. I am reminded of that superb passage in the *Aeneid* where the Trojans first sight Italy:

Cum procul obscuros colles humilemque videmus Italiam. ITALIAM primus conclamat Achates, ITALIAM lateo socii clamore salutant.

for which I make an irreverent paraphase:

When from afar we sighted dim hills and dark-lying Africa, Africa! first cries out the hard-boiled General Patton, Africa! yes, by God! all hail with loud acclamation.

Our objective, the beaches of Fedhala, are twelve nautical miles by sea and fifteen miles by land from Casablanca; and in Casablanca there are known to be the French battleship Jean Bart, a cruiser, eight or ten destroyers, thirteen submarines, and sundry small naval craft. Cape Fedhala itself has a battery of 100 mm. and one of 75 mm. guns, which are able to sweep the beaches and their approaches; and at the other end of the beaches is the Pont Blondin battery of four 138 mm. guns-'Sherki' we call it—from misreading an Arabic name on the map. Besides these there are numerous machine gun nests on the Cape, near the beaches, and around the town. Our orders are to put several thousand troops ashore on these beaches before sunrise. Those assault troops are to capture the town, the harbor, and whatever batteries the Navy has not silenced. Then, reinforced by many thousand more troops landed in daylight, they are to establish a beachhead running well back into the country, and prepare to advance overland against Casablanca. The French are known to have several hundred fighter and bomber planes within reach of Fedhala; but our carrier-based planes will be launched before sunrise and should catch them grounded, if they are smart. (They are.)

The transport unloading area is several miles off shore. As soon as the landing boats are in the water, they come up under rope-net ladders down which the soldiers scramble with heavy equipment on their backs, while cranes lower the tanks and armored vehicles into tank lighters. The landing boats and lighters are organized in 'waves' alongside the transports that are nearest the beach. Four destroyers, one for each transport, conduct these waves of landing boats to the 'line of departure' and anchor. At the predetermined hour, the first wave leaves the line of departure for the beaches, followed at short intervals by other waves. As soon as a boat is unloaded on the beach, her naval crew must make every effort to

retract her and return to their transport to get another load.

You can see how vulnerable the whole operation is, and how necessary it is to surprise the enemy. Apart from all chances of weather and heavy surf, the boats and the men on the beaches may encounter enemy fire from the ground and from the air. That's where our ship comes in.

While the boats are being loaded from the transports, our task in the *Cambridge* is to patrol to the eastward and northward of the transport area. That gives plenty of time for reflection. It is the dark of the moon,

but the sky clears up, revealing Orion in all his splendor flung across the zenith. Cassiopeia sets, the Great Bear rises right up on his tail, and the guards of Polaris, the mariner's eternal clock hand, move slowly up from the horizon. What countless stratagems of this sort—land in the dark to conquer before dawn—have been practised on this very coast, since remotest antiquity! We might be caravels of Prince Henry the Navigator in 1442, with sails furled and yards on deck, waiting for the Pole Star clock to register two hours before dawn to move in and rush the town. It has always been the same technique. You want a couple of hours' darkness to get ashore and surprise 'em, and then daybreak, so you can tell friend from foe, and gold from brass, and wench from wife.

A destroyer signals jubilantly over voice radio 'The Yanks are coming!' That means the four destroyers are leaving the first line of transports with the boat waves. It will take them at least an hour to reach the beaches. A new chapter in African history is about to open. Maybe a new chapter in American history, too. Glad I'm here to write it!

An hour passes. The men must be leaping ashore now, rifles in hand, running up the beach and striking for their first shore objectives. That's exactly what they are doing, but we hear nothing of their activities for another tense hour.

Morning twilight is just beginning as the *Cambridge* moves majestically toward her fire-control position, where she can take care of Sherki battery if it gets mean. It does. Firing is now heard on the beach. A searchlight shoots up from Sherki and another from Fedhala, looking for planes—they heard the humming of motors and thought that's what we were. Then the searchlights drop and move nervously about, pricking holes in the darkness about the bay and beaches, revealing what must have seemed to the French, at first, a mere commando raid. The shore batteries open fire. Over the voice radio we hear the captain of destroyer *Callaghan* asking his commodore 'Can I open fire?' The answer comes 'Go ahead!' and the commodore telephones the pre-arranged word that resistance has begun. A few minutes later there comes over the air the long anticipated signal for a general engagement, Play Ball!

FLASH from Battery Sherki, FLASH from destroyer *Callaghan*, and then the sullen Boom!—Boom! as the sound catches up. It is still so dark that the shore is invisible, and we first know Sherki is firing at us by seeing red-hot shells hurtling through the air in our direction. Inshore, and at half our range, bold *Callaghan* is blazing away at the battery. Guns on Cape Fedhala join the chorus; the cruiser *Charlotte* and two other destroyers return their fire. Our little corner of the world, so hushed and dark

and silent for five long hours, is now split with blinding gun flashes, shattered by machine gun fire, shaken by the crash of heavy ordnance.

Now Cambridge comes in and contributes to this uproar her own hoarse bray of six-inch guns. First, however, she must catapult a spotting plane. Sharp rattle of the plane's motors, blue fire snorting from her twin exhausts, the hand signal, a swift rush on the catapult, CRACK goes the explosive charge, and handsome young lieutenant Bartram is shot into space. Three minutes later he's over the target, and our fire-control officer down in plot room can hear his cheery spot on our first salvo: 'Up one hundred; no change in deflection.'

It's high time we did get into it, for destroyer *Callaghan* is taking a hot fire at close range. Her fighting skipper telephones about Sherki: 'This damn *Turkey* has got my range. I've got to get the hell out!' She does, with one shot in her innards and one engine room dead—but she performs anti-submarine patrol around the transports even as she licks her wounds.

We, the Cambridge, steam back and forth from Sherki; and how we do pour out the stuff! At 6:32 we're firing the salvos of all our six-inch guns at once, and a minute later Captain Compton orders continuous fire—approximately one hundred and fifty shots a minute, rapid as a machine gun but unevenly spaced and a thousand-fold as loud. For us on board, the scene is magnificent; for those we were protecting it was sublime. 'Most beautiful thing I ever saw,' said a transport commander when we talked it over afterwards. In the gray morning twilight, against a smoky horizon, the hot bright puffs of fire, surrounded by clouds of luminous orange-colored smoke, make the Cambridge stand out like a vicious flame-belching monster of mythology.

Now you can see what we're there for—to draw the fire of Fedhala's powerful batteries away from our men and boats. The coast batteries, manned by French Navy personnel, know that if they can't drive off our fighting ships, their goose is cooked, but that if they can dispose of our fighting ships the transports will be easy meat. So they concentrate on us and pay no attention to the landing boats. Until after sunrise, when hostile planes appear and enemy machine guns can see their targets, our landings are almost unopposed in this Fedhala area, which had the greatest means of resistance, because we plastered the defense with aggressive

naval gunfire.

Cambridge at the western end of her first support area steamed right into the boat wave plying to and fro between the easternmost transport and beach. My most vivid memory of the battle is one such moment in the morning twilight when we executed a 180-degree turn right among

the boats, firing over their heads; and as I looked over the side I could see the soldiers' faces lighted by our gun flashes, turned up toward us, open-mouthed with amazement at our furious shooting. One of the naval petty officers who steered a landing boat was asked after the battle how the soldiers 'took it.' 'Those fellows were kind of solemn going ashore,' he said, 'didn't seem to want to talk.' Don't blame them, do you?

However, we got them ashore all right, and guess what the first wave of assault troops did, in black darkness. Bagged a fleet of German cars, in one of which Colonel (now General) Wilbur made his famous dash into Casablanca, hoping to persuade the commander, an old friend of his at l'École de Guerre, not to fight us. He did not succeed, and the French Navy put up a tough battle, which was only ended when Admiral Darlan ordered hostilities to cease on 11 November, at seven in the morning.

This three-day war was our first fight with the French since 1800. Let us hope it will be the last!

Boyhood Under Sail: 1874-1881

Letters to his son by Joseph C. Hilton

EDITED BY JOANNA C. COLCORD

JOSEPH C. HILTON was the son of Captain Bradford Hilton of Yarmouth, Nova Scotia, and his early years were largely spent at sea on his father's ships, at first in small vessels in the Western Ocean trade, later in the big down-easters Abyssinia and Armenia, in which he served under his father's command as ordinary and as able seaman. Leaving the sea, he attended Cornell University and graduated as a civil engineer, and was employed in such pioneer enterprises as the first subway tubes in New York and the first tunnels driven under the East River. After wandering years, many of them spent in directing engineering projects in South America, Mr. Hilton returned to New York City and at the time of his death in 1942 was Project Engineer for the Public Works Administration, in charge of the Circumferential Parkway of Brooklyn and Queens.

In the early '20s, during a period of separation from his family, Mr. Hilton conceived the idea of writing his recollections of his boyhood days at sea in the form of letters to his son Thomas, then about seven years old. The nine long letters which resulted paint an excellent picture of a child's life on shipboard toward the end of the last century.—Ed.

The first vessel I remember anything about was the barque B. Hilton, which was built when I was two years old and which my father 'took on the stocks' and sailed in almost continuously as master from the time she was launched until she got aground in the Scheldt River bound for Antwerp when I was nine. She was fair sized for a barque—just under a thousand tons, and bigger than some of the full-rigged ships of that day. She was rather a good sailer though far from a clipper; not a very good carrier and inclined to be crank, or as they used to say, 'a little tender.'

¹ The bark B. Hilton was built in Shelburne, Nova Scotia, by McKelpine in 1874, and owned and commanded by members of the Hilton family in Yarmouth. She was 986 tons $(175.9 \times 36.2 \times 21.6)$. In 1882, after grounding in the river Scheldt, she was condemned and sold to the Baltic. In 1887, she was under Swedish registry, as the Rosali.

Living Accommodations

Her cabins were large for a vessel of her size, and we thought them comfortable, knowing no better. Her house was the full width of the poop deck, and extended from forward of the mizzen-mast almost to the stern. The top was raised about three feet above the deck to give head room below. This house was divided into cabins and state-rooms, the cabins being the central portion with the rooms on either side. The after cabin, with a state-room on the starboard side and a bathroom on the port, was for the captain's use.

A partition divided the after from the forward cabin, with a door on either side. On the starboard side of the forward cabin was [the entrance to] a state-room next to the captain's room, then the pantry, and forward of that a state-room. On the other side were, next to the bathroom a state-room, then the second mate's room, and in the corner the mate's room.

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The state-room next to the captain's room on the starboard side was given to me and a door cut through the partition into my parents' room, so that my mother could slip in and tuck me up in the night or I could paddle in to her if I was frightened. The corresponding room on the other side was usually vacant and used as a store-room.

All the food was cooked in the galley—a little kitchen in the forward house, which was on the main deck forward of amidships. The main deck was low, so that in heavy weather there was always a lot of water sloshing around on it, especially amidships, where from being so constantly wet the deck planks became very slick and slimy. Imagine then the tasks of the steward and the cabin boy, who must bear the hot victuals aft from galley to cabin three times a day, running the gauntlet of wave and slippery deck each trip. Many a tureen of scalding soup has come to grief there, the contents going to feed the fishes through the scuppers! Many a chunk of salt beef, leaping from its pannikin, has skipped nimbly to and fro until finally cornered under a spare spar or behind a cask, to be dragged forth and thrust again into its vessel ready for its appearance on the captain's table. Fortunately the decks were clean, or we'd have eaten more than our peck of dirt; so long as the food didn't fall on the greasy, dirty galley floor we were in luck.

The large galley stove was fitted with special pots that clung to it fairly well, but of course they slopped over fairly often. There was a light iron rack or rail running around the top against which the cook could brace or wedge the lighter pans. Always in heavy weather he must be ready to grab or steady some utensil. The bulk of the carrying from galley

to cabin fell upon the cabin boy who must often have felt like one big bruise. Clatter and bang! here he comes, sliding feet foremost down the companion-way steps, bumping each in turn, while gaily bounding ahead

is our plum duff. 'Grab it, somebody, and stick it on the table!'

The dining table was fitted with low wooden racks while at sea. These ran fore and aft, so that the table was divided into three spaces, one on each side the width of a dinner-plate for us to put our plates and mugs in, the third a wider one down the center to receive serving dishes and platters. With the aid of these racks, and by holding our dishes with one hand, we could brace and wedge our things so as to get an odd chance now and then to put something in our mouths. Cups and saucers were not used aboard ship. A good square-bottomed mug will stay right side up through many vicissitudes, and save for the loss of the handle, it will take a good many bounces on a wooden floor without serious injury.

In the pantry were shelves divided into cubby-holes within which the dishes were stowed, wedged as tightly as possible. Such mugs as still had handles swung to and fro on hooks from the deck-beams overhead. As the ship rolled and pitched, you could always hear the clink of crockery rattling about, punctuated now and then by the crash of some active piece escaping durance. With every voyage our china needed replenishment;

what remained bore the scars of conflict.

In the forward cabin over the dining table was a swinging lamp fastened to the partition between the cabins. Its light fell upon the clock and shone upon the long swinging barometer with its brass trimmings. This light burned all night, being turned low for economy's sake; its glow shone up through the skylight, canvas covers being sometimes used to hide it from passing ships for fear of misleading them.

Bad-Weather Days

The only way to get into the cabin of the *B. Hilton* was by a wide stairway or 'companion-way,' which led down from the pilot house into the forward cabin.² The pilot house stood on the poop forward of the cabin and was entered by a door on either side. At sea the weather door was always closed and the lee one usually hooked open, so, although the wind would not blow in, a little boy could run upstairs and out on deck without having to struggle with a heavy door while the ship was rolling and

² The fact that the *B. Hilton* had no after companion-way is confirmed by Captain Arthur Hilton of Yarmouth. This was a very unusual feature of cabin design. Since there were no alley-ways from the forward poop to the cockpit, it meant that the wheel was accessible only by climbing over the after house. The windows opening on the cockpit were only portholes, so that in case of fire in the forward cabin, the sole exit for persons trapped in the after cabin would have been through the skylight.—ED.

pitching. If the weather were too stormy the lee door also was shut, and then a little boy had to content himself below decks or standing on a built-in settee in the pilot house gazing out through a small window that faced forward, through which he could get tantalizing glimpses of events on deck. Outside, the wind would be roaring and shrieking through the cordage, the waves pounding on the ship's side and thundering upon her decks as they swept over her bulwarks in a seething white and green mass; the ship would be lying with her lee rail near the water and weather side high. The wet and slippery decks slanted like the side of a roof—very steep when she rolled down to leeward, almost level when she came back to windward; all the time she would be pitching and plunging forward, shuddering under the blows of the sea.

Through the little window there were fleeting views of mountainous waves lathered with foam, of lowering skies, misty and indistinct—a wonderful sight for a little boy, but at times terrifying, so that he would creep back to his mother lying in her bed, always too seasick on such days to be up and about. She would comfort him while they listened to the feet of running men on the deck above, the shouted commands, the cries of the sailors as they pulled and hauled on downhauls or clew-lines, the boom and slat of flying canvas as sails were blown away or taken in. Always we were waiting for the sound of sea-boots on the stairs, an oilskinned figure in the doorway, a cheerful face under the dripping sou'wester—Daddy, come to tell us, as he glanced at the barometer, that all was well, the ship lying easy under her reducd sail, and what could he do to make Mother comfortable?

Play on such a day was hard to think up. Of course for a time one might sit down on the bare floor and slide to leeward as the vessel rolled down, but that soon played out. Toys would roll away if left loose at all, and had continually to be retrieved. Wedging oneself into the easy chair with a familiar picture-book or with a slate upon which to draw, or better still, with one of a numerous fleet of toy boats whose sails could be raised and lowered, was as good a way as any to pass the time. On such a day bedtime would come none too soon.

Fair-Weather Days

On fine days the little boy might go on deck as he wished. He must not, however, go off the poop at any time except when his father should take him. The poop was sacred to the captain and his officers. No sailor might appear there except on business, and immediately his business was finished he must depart. Being higher than the main deck, it was safer from

the waves, which sometimes popped aboard. For that and other reasons, a little boy must not venture from it. Of course, this little boy was always very sure that the main deck and the forecastle head must be much more interesting than the poop. Some days when the weather was very fine, he might get permission to go down on the main deck and as far forward as the main hatch but even this did not satisfy him. The forward house, containing galley, carpenter-shop and forecastle, was full of interest, especially the carpenter-shop with its array of tools and its smell of pine shavings.

Sometimes his father, who liked to make things himself, would have a job to do in the carpenter-shop, and would take him along. That was grand; he could amuse himself with a few dull tools or a hammer and some nails, and perhaps in passing the galley door might look in and receive a patty pan cake or a piece of baked pie-crust from the cook. The

trip forward and back was therefore a little adventure.

The little boy's day began shortly after seven in the morning. Once awake, he must know how many other vessels were in sight, and if any were reported near by he would hurry to get dressed so as to see for himself. Otherwise he was an inveterate little dawdler who had to be prodded and hounded.

At seven-thirty, 'seven bells' would be made on the ship's bell. As the mellow notes died away, the cabin boy would begin a vigorous ringing of the breakfast bell. The little boy, his father and mother, when she was able, and the first mate would sit down to breakfast in the forward cabin. Eight bells would sound as they finished, and the boy would run up on deck to see the watch relieved. Usually a few pulls were made on braces and other slack ropes, and then:

'Relieve the wheel. Go below the watch!'

During the day the little boy must be quiet when in the forward cabin, and must not run on that part of the deck over the officers' rooms, because one or the other of the mates would be asleep below and must not be disturbed. But on the rest of the deck he might make as much noise as he liked, and the after cabin was far enough away from their rooms to save annoyance when the doors were closed.

As soon as he could leave the deck after eight bells, his father would come below and conduct family worship in the after cabin. Then the boy might play for an hour or so on deck if it were fine, usually with his boats, which were mostly flat-bottomed so they would sit on the deck. Of course if other vessels were in sight he must look at each of them through the spy-glass and make out the rig if he could. (Just as you have learned to

tell one kind of automobile from another I learned when I was a little boy to distinguish between the various rigs and nationalities of vessels.)

Some times there would be porpoises to watch, or an occasional whale. Usually there were sea birds, and sometimes flying-fish. Occasionally we might pass near enough to another vessel to 'speak her.' 'Ship ahoy! What ship is that?' our captain would shout. Faintly over the water would come her captain's reply: 'Warrior, Pictou, Nova Scotia, from Liverpool for New York. What ship is that?' And then the answer: 'B. Hilton, Yarmouth, Nova Scotia, from St. John to Liverpool.' Usually that was all there was time for, but sometimes they would exchange their latitude and longitude. More usually we signalled with flags if we passed near enough to see clearly, and often we would go out of our course to pass near enough to signal.

The little boy did not always have good 'sea legs.' Usually the first day out of port and sometimes the second he would feel very stupid and sleepy, with an uncertain feeling in his stomach which would begin to make itself felt about the time the pilot said goodbye. Up on deck in the fresh air he could fight it off, but down below in the stuffy-smelling cabins it was harder work. Soon you'd find him stretched out on the sofa or curled up in the big chair, very miserable, with no appetite, and glad when bedtime came. Sometimes he'd be really seasick, and then the trouble would soon be over—a good night's sleep, and who so full of life as he next morning! Eagerly he'd dress and rush on deck to see again the sights of the sea, slightly unfamiliar after a couple of months in port. And then, if only a sail were to be set or taken in, he'd be perfectly happy watching the men pulling on this rope or that.

He had one plaything of which he was very fond—a little set of pulley blocks, a single and a double, rove up with a light rope like a clothes-line into a tackle. With this he was forever hoisting boxes and sticks or tightening ropes. The gaff-topsail tack, an unimportant rope which was fastened to a belaying-pin in the quarter-deck rail, occasionally needed to have its slack taken up. His daddy would have the little boy bring his tackle, and the two or them would proceed to 'sweat it up' with the greatest care,

doing everything in the most seamanlike manner.

Very early the little boy learned how to 'hold a turn' around a pin while the men 'swigged' a rope tight. At first he would 'tally on' behind a sailor, but as he grew older he was entrusted with the turn all to himself, if the strain were light. Sometimes in the same way he was allowed to 'lower away' on a light halyard. Of course this was when he was older—eight or nine years. Once when he was quite a little boy he burned his hands

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badly when he undertook to lower the spanker one day in port. It had been set loosely to dry one calm day, and late in the afternoon he heard his father tell the mate to take it in. He had been warned many times against fooling with halyards or ropes of that kind when sails were set, but like a good many other little boys, he thought he knew enough to take care of himself and did not need to pay attention to all the things he was told. So when he knew that it was time to lower the spanker he slipped away to try to do it all by himself. For a time all went well. The throat halyards, having little weight, settled easily enough, but when he started the peak, he was careless, and took too many turns off the pin. Away went the gaff, and whiz went the rope through those small hands. The wonder is that the flying coils didn't catch him, but they didn't. The mate came running, and just in time rescued one of the most frightened little boys you ever saw. His hands were cut and bleeding. They were sore for many days.

Sail-making

On fine days the little boy could watch the men splicing rope and occasionally a piece of wire rigging, 'serving' the eyes with marlin or spunyarn; this was always an interesting process to watch. Or he might hang around while a spare sail was being patched, the canvas being spread out over the poop to air while it was worked upon. Usually there would be one or more sailors in each watch who were skilful with a palm and needle, and who therefore became sail-makers upon occasion. After every serious gale we might have a couple of sails to repair. These would be unbent, sent down on deck and stored below in the half-deck, and others bent in their places. On fine days these sails would be hauled out to be patched, and when finished would be changed again at the first opporunity.

I remember that after a long succession of gales lasting almost three weeks we had had so many sails blown away or badly split that we had used up all of our spare topsails and a number of other sails. When we finally shook ourselves clear of the heavy weather we were forced to limp along for days with all sorts of make-shifts—'goose-winged topsails' (one side set, the other furled because it had a hole in it which would tear bigger if it were exposed) and some sails missing altogether. We must have looked a sight had any other vessel passed us, but we had drifted away off to the southward and were making a southern passage out of season, so met no one. The weather became very mild and sunshiny, so that all over the poop were spread the remains of such torn sails as had been saved, and on them was working everyone who could be trusted to sew. A couple of the best sail-makers were taken from their regular watch duty

and put to work on day duty, sewing steadily from seven in the morning until six at night, except for half an hour out for breakfast and half an hour for dinner. The captain was a very fine sail-maker, and he would spend hours every day, fitting, cutting, and sewing with the men. He rarely trusted anyone else to cut or fit a sail.

With all this canvas spread about, the little boy could have a fine time crawling under and making himself caves and tents and houses. Of course he had a little palm and needle, and could spend as much time as he wished sewing scraps of canvas together. There were always odds and ends of rope which he might splice or in which he could tie knots. He early learned to tie a 'bowline' and a 'reef-knot' (you call it a square knot), and was warned against a 'granny.' He was also shown how to make a short splice, but it was not until he was quite a big boy that he mastered the long splice (which is the ordinary splice used aboard ship) and the eye splice.

The old sailors—some of them—were adept at all sorts of fancy work in rope. When I was a sailor, I learned how to make many curious kinds of knots and to weave all sorts of sennit using rope yarns or twine. Much of that lore I have forgotten, and very little of it is now in use.

Much time had to be spent each trip in replacing worn chafing-gear on rigging and sails. In calms or light weather, the sails are continually flapping back and forth as the vessel sways with the swell, and as they do so they rub against the rigging. Provision is made against this wear and tear by means of 'chafing-gear.' Mats of various kinds are made of canvas, 'baga-wrinkle,' rope, spun-yarn or marlin, and are fastened to the rigging or the sails so as to catch this rubbing. Making various kinds of chafing-gear and placing it was part of the regular ship's work—in heavy weather it could be made in the shelter of the forecastle head or in the carpentershop, and in fine weather it could be put on.

Once a week the topmasts and topgallant-masts must be slushed down. For this purpose the cook saved all the grease from the galley and turned it over to the mate. Then on Saturday a man with a grease-pot suspended from his neck would climb to the royal yard, and beginning there would carefully grease the royal-mast, topgallant-mast and topmast, so that the yards would run easily when raised and lowered. It was a dirty job, and the sailor was lucky who could do it without greasing himself too. Nobody cared about *him*, but if he spilled grease on sail or deck he'd hear about it mighty soon, and probably spend part of his watch below cleaning up his mess.

During the day except in foggy weather no regular lookout man was

kept on duty, unless we were approaching the land or were among a fleet of vessels. But at night a regular lookout was maintained—a man patrolling the forecastle head and watching out for anything that might heave in right. In forecastle head and watching out for anything that might heave

in sight. In foggy weather this man would blow the fog-horn.

In the daytime the officer of the watch would be with his men wherever there was work to be done, but at night he paced the weather side of the poop or quarter-deck, keeping an eye upon the ship and all that concerned her. It was a very serious offense for an officer to go to sleep while on watch.

Sunday at Sea

Sunday on board ship at sea was different from other days. Of course the vessel sailed along as usual, and the regular work of steering, trimming sail and the like, had to be attended to; but no unnecessary work was done, and if the day were fine the watch on deck would dress themselves in clean clothes and sit about as they pleased. Some of them would do their week's washing, down on the main deck.

In the afternoon the ship's library would be brought out on the 'booby hatch' and the men might come aft then and exchange the books they had got the week before for new ones. Since they did not like to mount the poop in the face and eyes of the officers for this purpose, as the little boy grew older and was allowed the freedom of the main deck they would waylay him with requests to do this exchanging for them, or they might persuade the cabin boy to do it.

On our vessel, an endeavor was made to give the men a day of rest. Sails were trimmed early in the morning, and unless something really needed attention things were left pretty much alone until evening, when they were tightened up as usual for the night. The food on Sunday was a little better than on week-days—plum duff was always served for dessert.

On the *B. Hilton* we had no Sunday church service, but later, on the *Abyssinia*,³ your grandfather endeavored always when the weather was not too rough to have a Sunday evening service in the cabin, to which was invited everyone not absolutely needed on deck. The officer on watch, the man at the wheel and the man on lookout could not come, but everyone else could and did. The service began about 7.15 P.M. and lasted half an hour, or maybe until 7.55. The men sat in the forward cabin on the dining settees or on camp stools. Our family sat in the after cabin, where your grandmother played her little organ and we children stood beside her and sang. Your grandfather stood in the doorway between and read from the

³ A wooden bark of 1,127 tons (186.5 x 36.7 x 22.4) built in New Brunswick in 1885, but hailing from Yarmouth, Nova Scotia.

Bible, led the singing, read a sermon and prayed. The men loved to sing, and we had hymn-books enough for all, so we had plenty of singing. Attendance was not compulsory, but I noticed that although early in the voyage some of the men stayed away, by the time we had been out a month they would all come crowding aft.

'Let Your Lower Lights Be Burning' never fails to bring a picture to me of a vessel slipping through the gathering darkness, colored sidelights gleaming, a soft glow from the cabin skylight, the reflections from the binnacle falling on the steersman's face, while from below there floats up the music—the rough voices of the men, the softer ones of the women and children, led by the little organ.

Tacking Ship

Tacking in a fresh breeze is one of the prettiest evolutions of a sailing vessel—full of excitement and very exhilarating for a small boy. Very early he received his station, to help take in the slack of the main-top-gallant and royal braces as the yards came around.

With the order 'All hands about ship!' the watch below would come tumbling up out of the forecastle. 'Haul up the mainsail,' and with that out of the way, the first mate with a couple of picked men would take his station on the forecastle head, while the second mate ran to the lee mainbraces to get them clear for running. 'Lay aft to the spanker sheet,' and the men would come tumbling along the lee side till clear of the cabin, then swarm up to windward to get at the spanker sheet.

'Ready about!' And seeing that the mate forward was ready, the ship travelling nicely through the water, the man at the wheel would be told to 'Put your helm down,' which meant for him to pull the wheel toward himself as fast as he could. 'Haul in the spanker sheet,' and, as the ship began to come up into the wind, 'Hard alee!' This was the signal for the mate and his men to let go the jib sheets and 'raise' the fore tack, which they did amidst flapping of canvas.

'Belay spanker sheet; main-braces!' and hastily the men would rush to the weather main-braces, the little boy running along the top of the house to his place at the topgallant and royal braces. Swiftly the ship's head comes to the wind and she straightens up with sails aback, looking very puffy and unnatural with the wind in the wrong side of them. Then at just the right instant, 'Topsail haul!'

The second mate lets go the lee braces, and with whirr and rattle of blocks, around come the main-yards, faster, almost, than the men can take in the slack of the braces. 'O-ho-ho-ho-ho-ho-o-o,' they sing, as hand

over hand they try to race the whirling yards. The little boy is frantically

trying to get his slack in too—very much excited!

The ship's head is now paying off on the new tack; the mate forward has jibs trimmed and is ready for the fore-yards to swing. 'Belay mainbraces; lay forward.' As the men race by, one of them gives the little boy a

hand to haul taut and belay his braces.

'Fore bowline! Let go and haul!' The second mate somehow has got there in time to let go the fore braces. The fore-yards do not swing easily like the main; the ship's head is too far round for that. No easy taking in of slack here; so, some grasping the fore brace and some the topsail braces, all hands start tramping along the deck. 'Way-hey-hey-hey-he-e-ey!' Slowly and majestically the great yards swing until the canvas catches the wind aright.

'Steady your helm!' and gradually the ship gathers way, and heeling

down to the breeze begins to foam along on the new tack.

Now the excitement is past, but hard work remains. Yards must be trimmed to just the right tautness; staysail sheet and gaff-topsail tack must be shifted. To get the greatest speed out of a sailing vessel, every sail must be set and trimmed just right, and that takes time and care. When that is done, still remains the job of clearing up and coiling down all the tangle of ropes that have been thrown about in confusion. At last it is done, and the little boy, having finished coiling up his topgallant and royal braces, is at liberty to go to his play. Those braces were the first regular duty that he can recall aboard ship as being his. Always he must see that they were neatly coiled up and ready for running. At night and in foul weather some one else would attend to them, but on fine days, he must do it.

Making and Shortening Sail

Next to tacking ship, the little boy loved most to watch the processes of making or shortening sail. A barque such as the *B. Hilton* carried twentyone sails in all, when they were all set. Of these the flying jib, main topgallant staysail and mizzen-topmast staysail were the lightest canvas and the first to be taken in. Next to them came the fore royal, main royal and gaff-topsail. With these all in we were ready for a stiff breeze, almost a gale. A light gale would make us furl our fore-topgallant-sail and maybe our main-topgallant-sail, if we were braced up sharp by the wind; then with the outer jib 'dowsed,' we were getting snugged down for a moderate gale. These sails, if taken in one at a time, could be handled by the watch on deck without help from the watch below. From that point on, however, all hands were needed. A reef in the upper fore-topsail and a single

reef in the spanker would ease matters a little, followed by a reef in the upper main-topsail and a reef in the mainsail. Then the inner jib must be furled and the upper fore-topsail. Now we must double reef the spanker and reef the fore-sail. By this time it is blowing a heavy gale and the sea is getting up. Much water is coming over the weather rail amidships and considerable spray is flying over the poop—too much for the comfort or safety of the little boy, who must go below, or at least within the shelter of the pilot house.

The ship is heeling over and diving furiously into the seas, groaning and creaking as she labors. To ease her, the mainsail is taken in and the upper main-topsail, followed by the mizzen-staysail and fore-sail, perhaps also the spanker; and there we are under short canvas, ready to 'heave her to,' riding comfortably under fore-topmast staysail, main-topmast staysail, lower fore-topsail, lower main-topsail and main spencer. We rarely had to go below that, though I can remember gales in which the lower main-topsail was all we dared to show, and once when that blew away we were 'under bare poles' entirely. In such a case it is usually necessary to lash a small piece of canvas—a tarpaulin or something of the kind—in the mizzen or main rigging to hold her head up to the wind and keep her from 'paying off' in the trough of the sea, to wallow and probably founder.

These heavy blows usually came on rather slowly, giving time in which to reduce sail gradually. A squall comes on more suddenly—a furious puff sweeping down from some black cloud that has quickly appeared. The presence of this cloud has been noted and we are somewhat expecting it, having hauled down the flying jib and the light staysails, but at that, we have an exciting few moments when the gust strikes us and we heel down with our lee rail almost to the water.

'Luff!' The helmsman strains his wheel toward him.

'Clew up fore royal!'

'Let go halyards!'

'Haul up clew-lines!'

'Ease off sheets!'
'Haul up buntlines!'

'Belay all!'

'Main royal!'

'Let go halyards!'

'Haul away clew-lines!'

Caught in the grasp of the wind, at first the ship lies on her side struggling, but gathering way at length she rushes furiously through the water, and answering her helm, swings her bow toward the wind, spilling some of it from her sails and so relieving the pressure. With the fore royal clewed up and the main royal yard lowered, she is relieved of further pressure aloft. Now she can, so to speak, lift up her head and take a look round her, and as she does, down comes the rain, furiously at first, then more gently as the wind dies. In half an hour it is all over and we are setting royals, staysails and flying jib again.

Sometimes we have a harder time, being caught aback with the wind of a squall coming from the opposite direction from the way the wind has been blowing. We try not to let this happen, but if it does, it is 'All hands on deck to shorten sail!' and we are lucky if we don't lose a spar or two.

Recollections of the Ports

The little boy remembers being in Havre, and lying at anchor off the mouth of the river while some of the cargo was taken off in lighters. He remembers that the docks seemed small and crowded, and that lying at anchor in the roads was a French cruiser with a ram on her bow sticking forward under water, of which he was much afraid, because he was sure that if war were to come, that cruiser would chase the *B. Hilton* and sink her.

A little boy voyaging around keeps no track of time or place. Where we went and when I cannot say. Liverpool, Philadelphia, Dublin, Baltimore; back and forth we went, and each has left its memory more or less distinct. The great docks of Liverpool filled with shipping, and a hurricane blowing so fiercely that the ships were grinding against each other and against the stone walls of the docks, while the shrieking wind tore through the rigging as savagely as at sea; his father coming back from town and telling how chimney-pots and bricks were falling in the streets so that it was hardly safe to venture forth.

On the passage back to America, the little boy had his first Christmas at sea, and it is really the first Christmas of which he has any recollection. He was much exercised in spirit over the thought that Santa Claus might overlook a lonely vessel tossing about on the wide ocean. His father and mother reassured him, however, and sure enough, Santa did find the ship during the night, so that when he awoke Christmas morning his stocking was ready filled for him. Presents were distributed after breakfast just as though he were ashore, and he remembers in particular a big toy locomotive that wound up with a key, and a train of cars. At least they seemed big to him, and they were treasured possessions for a time, but at length old age claimed them one by one, till only the locomotive was left and it showed the effects of a strenuous life. The little boy was sure that if a fire

were built in it, the locomotive would run of itself like a real one, and no amount of argument could convince him otherwise, so at length his father consented to try it for him. The cab was filled with chips and shavings which were lighted in a glorious blaze. Alas! in half a minute the little engine was a black and twisted collection of tin, fit only to be thrown over the side.

We spent a winter in Philadelphia with the ship tied up in the Schuyl-kill at Point Breeze, I think because freights were too low. Philadelphia had recently installed electric lights—the first city, I believe, to be lighted that way. A telephone system had also just been begun in a feeble way, and I will never forget the first time I saw a telephone used. One of the ship brokers with whom my father did business had recently had one put in his office, and mother and I were taken to see it. The broker was talking with someone over it when we entered his office, so when he was through he asked the other man to hold the wire a minute, as there was a lady who had never spoken over a phone. Then he invited her to try it. I can see her yet—half-frightened, but so interested, as she spoke a few words to the man at the other end and listened to his reply.

Of Dublin I have two memories—Mother and me getting separated from my father, and finding our way along the water front to the ship in the evening, and of his frantic joy at finding us (since then I have learned that Dublin's water front was one of the very toughest in the world); and of a group of Yarmouth captains meeting on board the *B. Hilton* on Sunday afternoons, singing gospel hymns to the accompaniment of my mother's little organ.

Baltimore, and the long tow down Chesapeake Bay to sea, with a group of captains and their wives making the trip down with us to return on the tug. All night long we towed through the stifling heat, with the mosquitoes eating us up—the women cooped up together in the state-rooms and the men lying on mattresses on the after cabin floor. It was a sorry-looking party, though still full of pep and fun, that climbed down to the tug's deck next morning and waved goodbye as she headed back up the Bay while we stood out to sea.

Arrivals

Back and forth, sometimes a month, oftener six weeks, on a passage, and occasionally eight; then the excitement of making the land, the approach of the pilot boat and the pilot's arrival alongside in a tub of a dinghy while the ship lay 'hove to' with her main-yards aback and a sideladder over at her lee gangway. With him aboard safely, the main-yards were swung again and we were on our way, while we endeavored to gather

the latest news from him and from his three-day-old newspaper. Then the tow-boat, and the inevitable dicker over the price of a tow, compromised at length. A heaving-line is thrown, caught and bent to our hawser by willing hands, the hawser made fast to her bitts and paid out to the proper scope and made fast to us; and with black smoke pouring from her funnel, the tow-boat settles to the work of yanking up into port in the shortest possible time.

Now it is 'All hands take in sail!' Hauling down and clewing up, the blocks rattling, the sailors shouting, the officers bawling their commands, everybody excited and happy. The anchor is off the bow and hanging at the cat-head; the tug has slowed down; we are now among the shipping. At the command of the pilot the tug has swung us over the anchorage, and as our speed slackens, the carpenter, maul in hand, stands beside the cat-

head.

'Stand by your anchor!' The tug is still, the tow-rope slack, the ship barely moving.

'Let go your anchor!' The carpenter's maul knocks away the fastening; down goes the great anchor with a splash, the chain rattling through the hawse-pipe until it brings up on the windlass with a jerk that jars the

ship to her keelson.

Arrival in port was always an exciting event, a welcome change. At sea, cabin floors were bare, furniture fastened immovably in position or stored safely away. As soon as quiet waters were reached, great activity was displayed by steward and cabin boy. Carpets were brought out, aired, beaten and put down in after cabin and captain's state-room. Furniture was cast loose or brought from various hiding-places. With carpet down and furniture re-arranged, the after cabin took on a cozy, homelike appearance. No longer was it necessary to worry about things remaining where they were placed. The little balancing table could be hooked in one position without fear of things sliding off on the floor. No longer need racks be put on the dining table to keep dishes safe.

With the anchor down, the sails are furled and decks cleared up, while if not too late in the day the captain goes ashore to arrange for docking the ship and paying off the men. What a fine time he and mother would have that first evening, getting caught up with the news—family and general! And always there was the question: Where to next?—though this could

not often be answered at once.

Usually he would know where we were to dock, and would have arranged for a tug next day to dock us. Sometimes we might lie several days at anchor, but usually sometime next day the tug would come puffing

alongside. Then, laboriously, the anchor would be weighed by means of the clanking windlass, and, tied tightly to our side, the tug would push and guide us through the shipping to our dock. Once moored safely, decks tidied up, the crew would depart, eager to get away. The officers, of course, would remain, and the rest of the 'after guard'—steward, cabin boy, carpenter—and perhaps a couple of seamen. The tension of discipline would relax—life was easier. At night the ship would be deserted, except for a single watchman and our family, or, if we were away, one officer would stay aboard.

Stevedores would now appear, and day by day discharge our cargo. For a day, a gang of riggers would be employed under direction of the officers in sending down and stowing away our sails, or such of them as the crew had not removed while we were waiting to dock. Sometimes the crew could be held long enough after docking to do this, but it was hard work to keep them—too many land-sharks were tempting them to desert.

Ships usually lie at very out-of-the-way places, a wearisome journey for a small boy to get to civilization. To stay aboard with parents away was lonesome, to travel with them was tiresome. A few days in port, except under exceptional circumstances, sufficed to get the little boy rather fed up. Scenes about the docks soon palled. Gradually, as one by one the 'after guard' dwindled, the ship became a lonely place, and he longed for the activity of sea life. Changing docks occasionally furnished a little excitement—tow-boat and riggers appearing long enough to make the shift and then disappearing as suddenly.

To discharge our cargo would take three or four weeks. By that time, we might know what our next cargo would be and where we would be bound. If so, we would move to our loading dock, with stevedores going about filling us up as actively as before they had been emptying us. Sometimes we might be tied up idle for a few weeks—a very trying time, full of uncertainties. But at length we would be loaded again or nearly so, and getting ready for sea. Again hustle and bustle; stores—food and supplies for the voyage—coming alongside all in a mess and being stacked up on deck while the few remaining in the after guard toiled early and late to stow them away below decks in safety.

Departures

At length the ship is loaded; hatches are put on; riggers have bent sails, usually very haphazardly and carelessly; the pilot is aboard, the tug alongside, and here comes the new crew, a motley lot, half drunk and some of them wholly so, staggering about with their scanty belongings.

Enough of them are sufficiently sober to help unmoor and make the towboat fast, so we cast off and are backed out 'into the stream'; then, headed for sea, the tug takes the lead and hurries us toward the harbor mouth. If the wind be fair, we'll go directly to sea; if not, we may anchor to await a propitious wind, but usually we get the tug to run us a little further off the land and go to sea at once, for fear that our sailors may sneak away

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from us in the night if we don't.

Now we are clearing the land. Sail is being made, our disreputable-looking crew being driven from rope to rope by irritated and distracted officers. Somehow we get a little canvas on her. A blast from the tugboat whistle and a slackening of the tow-line is the signal for hauling in our hawser—a heavy job with a green crew, not all of whom are visible. A hasty counting of heads, then a search of the forecastle discovers the missing ones, who must be urged at the toe of a boot to get up on the forecastle deck where the work now is. Slowly the hawser comes aboard, the tow-boat captain favoring us so as to lighten our work as much as he can, until when close under our bow he orders the end let go, and with a farewell blast of his whistle signals his engine room 'full speed ahead,' and swinging in a wide circle he heads for home.

Meanwhile, under short sail, we are slowly forging ahead. A pilot-schooner on station has spied us, and loafing along under easy canvas has placed herself just outside of our path and to windward, dropping a boat with two oarsmen who come alongside, and catching a line from us, draw up along our lee side opposite the gangway. The side ladder is dropped over and the pilot, having shaken hands with captain and mate, said good-bye to the captain's wife, and patted the little boy on the head, skips nimbly down the side and jumps in the boat, which is immediately cast off. As soon as the pilot-schooner sees her boat clear of us, she runs down and picks it up. They were beautiful little vessels, staunch and very fast. You could tell them by the big black number painted in the mainsail.

Now our last connection with port is broken. More sail is made, a course is given the helmsman—a compass-course if the wind is fair, 'by the wind' if the wind is ahead.

Down below confusion reigns. Carpets are being taken up, hastily beaten, and put away. Furniture is secured in its sea position or stowed away for another voyage. The first slight heaving of the sea is apparent—things are beginning to slide about as the ship heels over to the breeze.

On deck the jaded crew is driven from task to task. Anchors must be secured on the bows—a herculean task, entailing much heaving and haul-

ing—movable objects must be put away or lashed down, tarpaulin covers placed over hatches and battened down. Drive, drive, no rest for anyone until everything be at least reasonably safe. A few moments for a hasty meal, then on with the work, far into the night, until captain and mate are satisfied for the time being, when the weary men are divided into watches and half of them are sent below to snatch a little sleep until midnight.

A Collision

The little boy was about seven, and his sister Marjorie was two, when the collision occurred. The *B. Hilton* was bound from Liverpool to Philadelphia with a cargo of railroad rails when one night in a fog she ran into an Irish barque loaded with lumber, carrying away the other vessel's bowsprit, jib-boom and fore-topmast, and receiving a bad bump on the starboard bow, which stove a good-sized hole in her above water but didn't interfere with her seaworthiness.

The little boy was fast asleep in his bunk. His mother and sister were asleep in the next room with his father, who was half-dressed as usual when lying down in thick weather.

Suddenly the little boy was awakened by being snatched from his bunk, a blanket hastily wrapped around him, and his father running with him through the cabin, while behind him came his mother carrying his sister. On deck was shouting; men running; a crash; the ship staggering. Lurching and grasping for objects with which to steady him, his father rushed up the companionway, set the little boy on the settee in the pilot house, telling him and his mother, who was close behind, to stay there, and rushed out on deck, from where he could be heard ordering the carpenter to 'sound the well,' to see if the ship were leaking, and giving the necessary orders to heave the ship to, and lower a boat.

It was really a very quiet night with very little wind, so that both vessels had been loafing along at very moderate gaits—the *B. Hilton* with the wind fair, going about five knots, the other vessel braced up sharp on the port tack, probably making about three. The fog was very thick and heavy, like a bank of wool, so they were right on one another before they heard each other's horns. But then, those old mouth-blown horns were very uncertain and had little carrying power, anyway.

Sitting in the pilot house, almost scared to death and shivering in spite of his blanket, the little boy gazed out into the blackness, listening to the unfamiliar sound of a boat being got ready to lower, and wondering if he and all the others would soon be adrift on the ocean in such a frail refuge.

He must have been half crying, because his mother had to comfort him.

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His baby sister settled herself comfortably for a nap.

After what seemed an age, his father came in and reported that the vessel did not seem to be badly injured—the carpenter had found no evidence of abnormal leakage—so that for the present there was no danger of sinking; but he was having a more thorough investigation made, and was going down into the hold to see for himself. Meanwhile, the boat was lowered and a crew sent to hunt up the other vessel. The first mate took charge of this, and scouted around for half a mile or so, keeping within hearing of our horn and ship's bell. He finally came across the other fellow and found that, being loaded with lumber, he was in no danger of sinking. They exchanged ships' names and information as to damage, etc., after which he returned to our vessel.

At length, when a thorough investigation showed that the *B. Hilton* was seaworthy, she was put on her course, and the little boy was allowed to scramble back into his warm berth, very thankful not to be drifting

around in an open boat a thousand miles from land.

Next morning he was up betimes to view the extent of the damage—the gaping hole forward, the scars on the hull where the other ship's anchor had gouged its way as the ships had ground past one another, the piece of white painted wood from the other vessel's figure-head that had lodged in our mizzen rigging! Nothing very serious had happened to us. The damage was comparatively slight, although it could not be properly repaired until we reached Philadelphia and could be placed in drydock.

Out of this collision a lawsuit arose. It was tried in Dublin, and our vessel lost, having been judged at fault because the other vessel, being braced up by the wind, had the right of way over us, who were 'running

free.'

A Mutiny

I don't remember just when this happened, but I must have been five or six years old. The *B. Hilton* was loaded with lumber at St. John, New Brunswick, ready to sail for Liverpool. It was a very foggy summer, and the Bay of Fundy was thick with it. There was a large number of vessels sailing from St. John about that time, so sailors were scarce. The fog was so bad that many captains did not dare to put to sea, so they had anchored at the mouth of the harbor to wait for it to lift. Their sailors, having been shipped 'by the run' and paid in advance, had deserted, so they were stuck there. The sailors and the boarding-house keepers were in league to split up advance money. As they could hardly do the same trick twice aboard the same vessel, no men could be found who were willing to ship

aboard a vessel lying at the mouth of the harbor. They preferred taking their chances on one at the dock.

My father decided that when he got ready to sail he would go immediately to sea, and not anchor to wait for the fog to lift and so give the men a chance to desert. Most of the men were more or less drunk when they came aboard, and some of them were quarrelsome. As we towed down the harbor it became increasingly difficult to get them to do anything. It was evident that they had no intention of going to sea, but were only waiting for the anchor to be let go before beating it. Nearby were plenty of boats waiting to pick them up.

Imagine their rage and chagrin as the tow-boat kept right on with us past the anchored ships, and orders were given to make sail. They didn't quite dare to refuse, but they were very slow in doing it. One man asked the mate (a most impertinent thing for a sailor to do) if we weren't going to anchor. Finally sail was made, and then the tow-boat dropped back, picked up the pilot, and said goodbye to us.

Meanwhile the captain and one of the officers had seized the opportunity while the men were aloft to search the forecastle and confiscate all the whiskey and weapons that they could find among the men's belongings. This enraged them very much when it was discovered, but it did help to sober them up.

The ship's company consisted of the captain, the first mate, an elderly Scotchman of no great force, the second mate, who was a good officer, a worthless carpenter, a steward who was pretty good, his wife who was stewardess, a couple of decent young Provincial boys who were sailors, and eight sailors who were the offscourings of the earth. Of these eight, two were really bad men, the other six were their followers.

That night it came on to blow, so that by morning we were shortened down to topsails in a moderate gale. The men had sense enough to obey orders in a case like this where the safety of all was involved. However, they were very surly and insubordinate.

In the morning they sent a man aft to demand that we turn back to St. John, their excuse being that the ship was leaking and not seaworthy. As she was loaded with lumber she couldn't sink, so that was hardly much of a reason. Besides, she leaked no more than usual—all ships leak some. Upon being told that we would not put back, the ringleader persuaded the men to refuse duty. The two boys slipped aft and were quartered in the half-deck, but the other men refused to do anything about the ship. One of them got word aft through the steward that he was not in sympathy with the rest, but he didn't dare openly to oppose them.

When the men refused duty, the captain told them that they should have nothing to eat until they should change their minds. For a time they had the remains of their last meal and some hard-bread, but this was soon exhausted. They then endeavored to intimidate the steward into giving them something, but he kept a couple of kettles of boiling water on the stove all of the time, and told them that he'd scald the first man who crossed the galley threshhold. He was a nervous, high-strung little man, who would have done just that, so they let him alone.

By the third day out they were desperate. It was still rather rough but moderating. They had gone so far that they didn't dare to give up for fear of being tried for mutiny in Liverpool, where the penalty would be severe. Somehow the officers with the two boys had managed to navigate the vessel so far. The captain was constantly on duty, snatching an occa-

sional few minutes' rest while his wife sat by ready to wake him.

The men sent word at last that they must have food or they would come and take it. Again it was refused. Then they came trooping aft armed with knives—seven of them. To oppose them were your grandfather and the second mate. The others were spectators, keeping as far from the trouble

as they could get.

Standing in the weather doorway of the pilot house, with a revolver in each hand, with the second mate guarding the lee door with the mate's revolver, your grandfather defied them to come beyond a certain line. He told them that although *some* of them might get by him, *all* of them wouldn't. They halted, hesitated, and then gave it up. The two ringleaders couldn't persuade the gang to rush without getting in front themselves, and they had no desire to be among those who wouldn't get by. Making all sorts of threats, they turned and went forward. What they didn't know was that only *one* of those guns was loaded—your grandfather had no ammunition to fit the other!

Why they didn't rush us that night is still a mystery to me. They knew that the mate and carpenter were no good, the boys were useless in a fight, the steward was physically weak; that the defense consisted of captain and second mate, both worn out with constant watching; but they couldn't

make up their minds to it.

Next day was Sunday, overcast but almost calm, the ship rolling around with hardly enough canvas to steady her, the officers not daring to try to set more sail for fear of being caught with divided forces while doing so. We had drifted and pounded our way out of the Bay of Fundy and were out in the track of liners bound from Europe to Boston. About noon one hove in sight, and seeing us under short canvas on such a fine day, swung

out of her course to have a look at us. We hoisted our ensign, union down, as a signal of distress, so she sent a boat aboard. To the officer in charge the captain told our predicament and asked him to take off our two ringleaders and lend us a couple of hands. The officer pulled back to his vessel to put it up to his captain. Soon he returned bringing the steamer's carpenter with him. They came aboard, made an examination of the B. Hilton, called the men aft and asked them why they were refusing to go on, and told them the ship was perfectly seaworthy. The men still refused to carry the vessel to Liverpool, but offered to take her in to Halifax, which was a hundred and fifty miles or so away. Your Grandpa was very loath to give up, but the steamship officers finally persuaded him that it was wiser to do so. An arrangement was thereupon entered into with the men to go back to work while we should make our way to Halifax. So, saying goodbye, the officers went back to their steamer which saluted and went on her way, while we began making sail with all haste, headed for Halifax.

By sundown next day we were off Halifax, but the wind was light, so we could not quite make it. A tow-boat came off, but instead of accepting a tow your grandfather sent him in to the city with a letter, ostensibly to arrange for our arrival next day, but really to get word to the police to be ready for us.

Next morning we were close in, and when the tow-boat came off we gave him our line, furled everything, and let him snake us into the harbor.

The mutineers had been in high feather ever since we started for Halifax. They counted on skipping out at once. As we entered the harbor and made for the anchorage they all went below and began getting out their baggage and changing their clothes—shaving and the like. Being so engaged, they didn't notice a rowboat slip alongside and put a couple of police officers aboard.

As the anchor was let go and the ship came to a standstill one of them came out of the forecastle and cast a casual glance aft. Such an astonished expression you never saw. He dived into the forecastle. In a moment eight heads were stuck out and eight sets of pop-eyes were focussed on our poop.

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ne ng The policemen strolled forward, told them they were under arrest, and ordered all boats to maintain a proper distance. A crestfallen bunch of men hauled in our hawser and got the ship in order. That afternoon the police boat came off and took them all ashore, where they were lodged in gaol. In a few days they were tried. The ringleaders got three months in gaol, the rest six weeks.

Stranding in the Scheldt

At length the wanderings in the *B. Hilton* came to an end. Arriving one day at the mouth of the Scheldt River bound for Antwerp, she was taken in charge by a river pilot, a tugboat took hold of her hawser and started up the river with the vessel dragging behind. All sails were furled and decks cleared up ready for port.

All day long the procession moved along the river through the flat country. In the distance could be seen an occasional village. Windmills with their lazily turning sails were frequent. Here and there could be seen curious looking boats moving across the country through the

numerous canals.

The pilot was a genial soul, much excited over the prospect of reaching Antwerp that night, for it was the last and culminating evening of the Carnival—the yearly event of which the New Orleans Mardi Gras is the nearest example in this country—and he was eager to join in the festivity. Doubtless the tow-boat captain and his crew were of the same mind, for as evening drew on, the smoke grew thicker from the stack, and the white foam from the paddles rushed by the ship faster with the increase of speed. The bends in the river kept tow-boat and vessel swinging from course to course to follow the crooked channel.

Supper was over. Dusk was falling, and from the deck the river bank was barely visible. Here and there a light had begun to twinkle from a distant house; the moon was not yet risen. The tide was very high—a spring tide—so the vessel seemed to float above the land, and actually did almost do that, the dikes along the river bank keeping the high tide

from overflowing the country.

Suddenly without any jar the vessel stopped moving. For a moment she was still, then almost instantly she began to list slightly to starboard, away from the nearer bank, and in the same instant the tugboat began blowing her whistle and swinging wide off on the starboard bow, endeavored to drag the ship back into the channel, which she had left in cutting a corner too fine. Too late; already the tide was falling, leaving the *B. Hilton* hard aground, well up on the bank and listing more each moment. From out of the gathering darkness appeared a second tug, summoned by the frantic whistling. With a line off the quarter, she tried to help the first one tugging at the bow. Useless! Then both on the quarter tried to back her off. Alas! she would not move, and it was plain that she was fast.

The first great question was: would she, perched at a perilous angle, remain in her present position until the next tide, or would she roll over? The next was how to get some cargo out of her so as to float her at high

tide. For the first, she must take her chance. One tow-boat was kept close at hand to take off the crew in case of necessity; on the other the captain and his family embarked for Antwerp, the former to arrange for lighters and help, the latter for safety and to be out of the way.

And so, about ten o'clock at night, the boy, now nine years old, found himself landed with his family in a strange city where seemingly no one could understand a word he said; a fact that frightened him a great deal, then and for some time to come. A cab took them to a hotel, where at length he was put to bed in a strange room, and finally fell asleep.

In Antwerp, he was taken to churches, cathedrals and art galleries, all of which made a deep impression upon him. His parents took him to see a panorama of the Battle of Waterloo—a wonderfully realistic picture which photographed itself upon his memory, so that to this day he can see it vividly.

The Zoo in Antwerp was the finest he had ever seen. Many visits were made to it and much time was spent there, although the propensity of his little brother Percy to try to play with all the animals kept him in a constant stew. Lions and tigers were objects of curiosity to the three-year-old, who derived added pleasure by the worriment he was evidently causing his brother. One day he broke away, and when found was standing under a tame elephant, gazing up at the animal's stomach while it stood waiting for a load of passengers to disembark from its back.

For days the boy saw little of his father, who was busily engaged in trying to float the vessel, much hampered by the fact that each tide fell short of the previous one, so that although much cargo was taken from the ship, she would not float. But at length, after a couple of weeks of waiting, high tides came again, so the the *B. Hilton* finally yielded to the solicitations of the tow-boats and slid off the bank into safety. But alas! She was no longer the graceful barque of old, but a poor hump-backed thing that would stay afloat only by constant pumping.

Tired of the hotel and the necessity of constantly chaperoning Percy from one place to another, the boy was glad enough to get back aboard the ship among familiar surroundings once more. The teeming docks were full of the kind of scenes he understood and loved. That great *Three Brothers*, 4 of 3,000 tons, an American full-rigged ship, the largest wooden

⁴ The *Three Brothers* was originally the wooden, brig-rigged paddle-wheel steamer *Vanderbilt*, built in 1857 in Greenpoint, Long Island for the old Commodore, who presented her to the United States Navy in 1862. In 1873, she was put up at auction, and bought in by Howes Brothers, who rigged her over as a ship and named her for themselves. Under sail, she registered 2,972 tons (312.6 x 48.6 x 21.8). After five voyages to San Francisco, she was 'sold British' in 1880, and five years later became a coal hulk at Gibraltar. According to Lubbock in *The Down-Easters*, she was broken up before 1929. Under sail she was very fast, but proved neither a profitable nor a lucky ship.

ship afloat at the time, towered above the poor little *B. Hilton* in all her glory, a wonderful sight. (She was unfortunately too big and awkward for her day, and not long afterward fell upon evil times in her turn, and with spars cut down, rounded out her life as a coal-hulk—at Gibraltar, I think.) A full-rigged brig, one of the few vessels remaining of that rig in those days, with very tall spars and sporting a main skysail yard, caught his fancy with her beauty. Then the snub-nosed Flemish sloops and yawls, with their awkward looking side-boards and their masts hinged at the deck so as to duck under canal bridges, were always coming and going, their crews standing about the decks in their wooden shoes.

With the cargo out, the *B. Hilton* was put in drydock, straightened somewhat, and strengthened by heavy timbers in her bilges and along her keelson—a sorry business, which could not bring her back to comeliness or strength. No longer fit for the Western Ocean trade, there remained only to sell her to a firm of Norwegians, who could use her in the timber trade of the Baltic. So one day the boy said a last goodbye to the old ship that had been more really his childhood home than any other, and she

passed out of his life.



Some Blockade-Runners of the Civil War

BY ARTHUR C. WARDLE

T a time when local and state records are almost inaccessible in England, it may seem presumptuous to submit an essay on this subject. Such records, however, are not imperishable and there is a duty to disseminate the result of research among the material which was available until war conditions prevented completion of the study. No comprehensive work relating to the blockade-runners has ever been compiled, and indeed such a task would be difficult and formidable. Their trade was clandestine. They changed names, registration and ownership many times, and were often quite indifferent as to the national flag under which they sailed. As official lists of seizures and losses are not available in Britain, the historian must content himself with scrutiny of contemporary newspaper files, shipbuilders' lists, and owners' fleet lists. In the case of the Liverpool-built blockade-runners, the present writer (through the courtesy of the Honorable the Commissioners for Customs) has been fortunate to have access to the shipping registers still preserved at the Liverpool Customs House. While written as authentically as possible, the following pages therefore should not be regarded as a finished treatise, and they are submitted in the hope that they may form the framework for some competent American student, aided by the documentary evidences which must lie within his own national archives, to provide a complete account of the vast fleet of merchandise and contraband carriers whose activities largely influenced the course of the Civil War and established a problem and a precedent in naval affairs which have confronted every maritime nation, in times of war, since those days.

At the outset of the war, with only moderate speed cruisers in commission, the blockade proved rather lax and, by June 1861, the 'runners' were almost in full stride, Charleston and Wilmington being then considered relatively easy trips. Those who have read Bulloch's Secret Service of the Confederate States will recollect the object of his mission to Europe

and his use of the Mersey port as a base for his activities. It was from Liverpool that he negotiated the purchase and construction of the armed raiders Florida (ex-Oreto) and Alabama which were to prove so costly to Anglo-American friendships. The Confederate government also appointed as European financial agents the firm of Fraser, Trenholm and Company, Liverpool, of whom the resident partner was Charles Kuhn Prioleau. No time was lost in the acquirement and construction of fast British craft for official Confederate account, for the purpose of running the blockade, and Bermuda, the Bahamas, and Hayana were fixed as the chief entrepôts for the trade. Fast, spick and span, paddle steamers, loaded down to their rails with cargo and bunkers, were dispatched from British ports, under the British flag, for such rendezvous as Nassau where, after filling with additional cargo in replacement of consumed coals, they made a swift run into Savannah or other blockaded ports and returned laden with cotton, turpentine or other commodities, often arriving with masts shot away and hulls battered after encountering Federal men-ofwar. Nassau, in particular, developed remarkably as a base. Coal depots were established on Hog's Island, in addition to a dock in which damaged 'runners' could be repaired, and on many a dark night speedy craft, painted grey (forerunner of our Admiralty grey) sped stealthily through the darkness towards one of the Confederate ports. This clandestine traffic, however, was not solely the perquisite of Bulloch and his European agents. Enterprising British merchants, mainly associated originally with the cotton trade, finding that the war was destined to stifle their businesses, were quick to discern the financial benefit which might accrue from a contraband trade with the Southern States. The hazards of the venture were many and great, and increased with the growing vigilance and efficiency of the blockading forces – but the stakes were high! Fabulous freight rates prevailed, while abnormally high wages and pay attracted the most intrepid and skilful of British mariners and engineers to the business. Thus, the Confederates paid dearly for importations. Fortunes were made and lost by the merchants and ship owners, and some of the naval and maritime risks involved may be gained from the fact that, in 1864, of the seventy-one blockade-runners using the Bermuda base alone, forty-three had been lost by the end of November.

One of the earliest of the 'runners' to be constructed in the United Kingdom was the iron screw steamer *Bermuda*, 897 tons gross, built by Pearse and Lockwood, Stockton-on-Tees, in 1861, and fitted with engines of 135 horse-power by Frossick and Hackworth. Completed in August, she moved round to Liverpool and was there registered in the name of

Edwin Haigh, a local cotton broker. Within a few days of that registration, however, a certificate of sale was executed in favor of A. S. Henckel and George Alfred Trenholme, of Charlestown. In the same month she took out her first cargo for the Confederate States and made several successful trips, with a crew of thirty men commanded, successively, by Captains Eugene Tessier and C. W. Westendorff, until seized and condemned by the Federal government towards the end of 1862. Her sister-ship, the Bahama, 887 tons gross, was launched 'by torch-light' from the same yard on 24 January 1862, and eventually fitted out on the Mersey, where she was registered in the name of Edwin Haigh, who later transferred her to Frederick Chapman, of London. Both vessels were barque-rigged, and measured 215 feet length, 29.2 feet breadth, and 8.98 feet depth. The Bahama made many trips and acted as a tender for the raider Alabama during the latter's fitting-out on the high seas. In August 1862, she was shown as clearing from Liverpool for Nassau, with a crew of forty-five men under 'E. L. Tessier, master,' her agents being M. G. Klingender and Company. The name of Melchior George Klingender appears many times as pseudo and registered owner of vessels employed as blockaderunners, and in 1862 he was agent at Liverpool for the Galway Line of steamers to St. John's, Newfoundland and the United States. The speed of the Bermuda and the Bahama did not exceed eleven knots, and at this early stage little more was needed to elude the vigilance of the Federal cruisers.

The aggregate tonnage of the blockade-runners, during the early months of the war, was not considerable, and consisted mainly of small though fairly fast cargo vessels purchased from British owners. By the spring of 1862, the blockade had so tightened, however, that swifter craft became necessary. In April of that year, the iron paddle steamer Anglia, 456 tons, and Scotia, 462 tons, both built in 1847 at West Ham and Blackwall respectively, were bought and dispatched from the Mersey for Nassau. Both had been employed on the Holyhead-Dublin mail service for some years and were capable of fifteen knots per hour. Each was schooner-rigged and two-funnelled. The Anglia, commanded by Captain Newlands, appears in the Liverpool registry as owned by Alexander Duranty, a local merchant, and was captured later in 1862 by Federal cruisers, while the Scotia, under Captain R. H. Eustace and later Captain Lilly of Charleston, made several voyages before capture. She was owned at Liverpool in the names of J. Dorrington, a Manchester merchant, and W. B. Forwood, a prominent Liverpool merchant and ship owner.

The first Mersey-built blockade-runner was the little steel paddle

steamer Banshee, 325 tons gross, 217 tons net. She was a steel structure of steel plates on an iron frame, built in 1862 by James Quiggin and Company, and is remarkable as being the first steel steamer to make the North Atlantic crossing. She measured 214 feet length, 20 feet breadth, and 8 feet depth, and had extraordinarily fine lines, with an elliptical stern and a turtle-back deck forward, while her rig consisted of two pole-masts without yards. She was fitted with engines of 120 horse-power and had a speed of eleven knots. The Banshee was first registered under the ownership of John Toulmin Lawrence, a well-known Liverpool merchant, but a few days later he executed a certificate of sale in favor of Thomas E. Taylor, his agent at Nassau, for which port she cleared from the Mersey on 2 March 1863, with a crew of thirty-six. Her plates were 1/8 inch and 3/2 inch thick, but she proved so leaky that she was compelled to put into an Irish port and, after repairs, reached Nassau safely. This vessel made eight successive blockade-running trips which returned her shareholders seven hundred per cent of their capital, but she was at last captured in 1863 by a Federal gun-boat and converted into a ship-of-war. The story of the career of the Banshee is well told in Running the Blockade by Tom E. Taylor.

She was followed, in 1863, by the iron paddle steamer Wild Dayrell, of similar tonnage and from the same yard, but this vessel was fitted with engines of 150 horse-power, and had a depth of 10.9 feet. Registered at Liverpool in the name of Edward Lawrence, she cleared from the Mersey on 17 November 1863, for Nassau, with a crew of twenty-six men under Captain T. Cubbins. Her career proved short, news reaching Liverpool early in 1864 that she had been destroyed off Charlestown. Meanwhile, a sister-ship, the Lucy, a steel paddle steamer fitted with engines of 150 horse-power by Fawcett, Preston and Company, of Liverpool, was completed by Jones, Quiggin and Co. in 1863 and registered as owned by E. J. Lomnitz of Manchester. She cleared from the Mersey on 16 October 1863, for Nassau, with thirty-two men under command of Captain J. A. Duguid. Twelve months later, while still under Duguid's command, she was captured off Wilmington.

A second and larger *Banshee* was built in 1864 for the Lawrence firm. She was a steel paddle vessel of 628 tons gross, 438 tons net, constructed by Aitken and Mansell. She measured 252.6 length, 31.2 breadth, and 11.2 depth. Fitted with engines of 250 horse-power, she attained a speed of sixteen knots. Built at a high cost, she carried a crew of fifty-three, but proved a most efficient 'runner' and once ran into Wilmington through a fleet of sixty-four vessels, the last part of the journey being in full view

of the Federal warships in broad daylight. On another occasion she made a daylight dash into Galveston but, by some error, at dawn found herself close to the blockading fleet. She made a wild bid for fortune towards Galveston, over a shoal, during which she was exposed the whole time to the fire of the Federal fleet. With funnels riddled with shot, she bumped her way over the shoal safely into port. This vessel was last heard of at Havana at the close of the war.

Another steamer constructed for the Lawrence firm was the steel paddle Night Hawk, 560 tons gross, built at Preston in 1864. She measured 245 feet length, 26.3 feet breadth, and 12.2 feet depth, and proved a fine sea-boat. A square-sterned, schooner-rigged vessel, fitted with engines of 180 horse-power, she reached a speed of fourteen knots, but had a checkered career, being captured in September 1864 at Chew Inlet by the cruiser Niphon. After the war, she found her way to British waters, where she was purchased by the Manchester, Sheffield and Lincolnshire Railway Company who re-named her the Sheffield and she remained in their service until broken up in 1879. During her career as blockade-runner she carried a crew of thirty-two men and was commanded by Captain A. Smiley.

One of the early 'runners' was the *Annie Childs*, an iron screw vessel of 601 tons gross, 449 tons net, and 250 horse-power, built at New York in 1861, which brought Captain Bulloch, the Confederate agent, from Wilmington to Cork, in March 1862. On arrival at Liverpool she was renamed *Julie Usher* and registered under the ownership of R. G. Bushby, being transferred a few days later to G. A. Trenholm and T. D. Wagner, both described as of Nassau. Bulloch, in his memoirs, states that she was originally the *North Carolina* and was fitted with a single engine of one inverted cylinder.

Of the Mersey-built blockade-runners the most notorious was the Colonel Lamb, a steel paddle vessel of 1,132 tons gross, 688 tons net. She was a rakish model, schooner-rigged, two funnels, and elliptic stern, her measurements being 279.5 feet length, 35.95 feet breadth and 15.35 feet depth, with a draught of 8.9. She was launched from the yard of Jones, Quiggin and Co. in May 1864 and christened by Mrs. Tom Lockwood, wife of her commander. The largest steel vessel built to that date, she excited much attention and there was much speculation as to her intended vocation, particularly since she was fitted with engines of 350 horse-power by James Jack and Co., Liverpool. Her paddles, equipped with feathering floats, had a diameter of 25 feet, and for a trial she was raced against the Isle of Man Steam Packet Company's steamer Douglas (II), attaining a

speed of sixteen and three-quarter knots against heavy seas and head winds. She was registered at Liverpool on 16 September 1864 in the name of William Quiggin, who transferred her twenty-four hours later to J. B. Lafitte, of Nassau. Named after the valiant commander of Fort Fisher, whose guns had so often saved blockade-runners from the fire of pursuing cruisers, she was obviously designed for blockade-running, but she was so large that considerable suspicion was aroused in the minds of Federal agents here. A report from the Consulate at Liverpool, dated 7 September 1864, states: 'Enclosed is a description of the new steamer Colonel Lamb just finished at this port. This is one of the largest and best built steamers that has been constructed in this country for running the blockade. . . . I understand that this steamer has been built for the Confederacy and now belongs to them, but no doubt Fraser, Trenholm and Co. will take out a British register for her. . . . I regard her as a very superior steamer. If armed with one or two guns she would be able to do much mischief as a privateer.' After leaving the Mersey, she proved quite a bogey to the Northerners, and on 5 October 1864, was reported from Halifax to be leaving for Wilmington and was described as 'a long, low rakish vessel, at present light lead colour.' A letter from the Secretary of the Navy to Rear-Admiral Porter even went so far as to state that a European state, possibly Poland, might send thirty thousand soldiers to help the Southern Army and that fifty steamers of the Colonel Lamb type would be built to run these troops through the blockade. A later dispatch mentioned that the vessel was to be converted into a privateer. The Colonel Lamb was commanded by Tom Lockwood, and at the close of the war proved one of the first vessels to reach the Mersey, which she entered. wearing the Confederate colors on 30 May 1865. She was then sold to the Brazilian government and chartered to take a cargo of explosives across the Atlantic, but was blown up while riding at anchor on the night before sailing and thus violently ended an adventurous career. Her sister-ship, the Hope, built at the same yard in 1863, had a crew of fifty men under command of Captain W. J. Gill. Registered in the name of William Ouiggin on a June 1864, a certificate of sale was completed six days later in favor of J. B. Lafitte, of Nassau. She made several blockade voyages and was sold at Boston in 1865.

One of the first shipbuilding concerns commissioned, through Captain Bulloch, for the construction of blockade-runners, was William C. Miller and Co., of Liverpool, who also built the famous armed raider *Florida* and the less successful wooden gun-boat *Alexandra*, seized by the British authorities while outfitting at Liverpool. One of this firm's block-

ade-runners, the *Lelia*, met a terrible fate. A steel paddler of 640 tons, 300 horse-power, built in 1864, she had a speed of eighteen miles per hour, and was registered at Liverpool in the name of Henry Elias Moss. She left the Mersey on 16 January 1865, under the capable command of Captain Thomas Buxton Skinner, of Virginia, and like all the outward-bound 'runners' lay very low in the water. Her crew of forty-nine included twenty in the engine-room staff, in addition to a Cork pilot and several passengers, among whom was Thomas Miller, son of the builder, J. B. Cropper, a Liverpool merchant, and Captain Arthur St. Clare or St. Clair. Captain Skinner was thirty-eight years of age. The vessel, which was insured for £32,000, headed into a fierce storm outside the Mersey and foundered. Passengers and crew made for the boats, but forty-seven lives were lost, including the captain and all the officers. This heavy loss of life, according to the subsequent court of inquiry, was due to the fact that the *Lelia's* four boats were found, in the emergency, to be without row-locks.

Maritime historians have failed to emphasize the value, from an experimental standpoint, of the swift crossings made by the blockade-runners, many of which attained a speed not reached by the high-powered North Atlantic liners until the end of the century. Nevertheless, their performances must have largely influenced design and power in transocean ship construction. For instance, the first steamships built at the Fairfield Yard on the Clyde were four blockade-runners, all completed within five months from date of contract, each with a speed of twenty and one-half miles an hour on trial. One of these vessels brought out of Wilmington the largest cargo of cotton carried up to that date. In 1863, the iron paddle steamer The Dare, 552 tons gross, and the Fergus, 784 tons, were turned out of the Kelvinhaugh works of A. Stephen and Son, after being built within six weeks, the Fergus reaching a speed of twenty and one-half knots. Nor were the Confederate agents slow to seize upon the latest forms of steam propulsion. The experimental iron twin-screw steamer Flora, 563 tons gross, 120 horse-power, was completed by the Thames firm of I. & W. Dudgeon. She proved faster than any other steamer of her size and power of that day, and, re-named G. T. Watson, was the oldest blockade-runner of the war, and the last to leave Charlestown for the Mersey in 1865. She carried a crew of thirty-six men under Captain P. Tecklenburg. As the G. T. Watson, she was registered at Liverpool in the name of C. K. Prioleau. Another twin-screw vessel was the Annie, a steel steamer of 429 tons built by Samuelsen, of Hull, in 1863. She had a speed of twelve and one-half knots, but she was captured off Bermuda in 1863, Dudgeon also built another twin-screw steamer for the blockade, the *Louisa Ann Fanny*, 680 tons gross. Completed in January 1865, her bunkers were so arranged as to afford ample protection for her engines from enemy shot, and she was fitted with three-bladed screws and reached a speed of fifteen knots. At the end of the war she made the voyage from Bermuda to Liverpool in ten days with a crew of forty-nine men under Captain W. G. Pinchon. Another twin-screw was the *Coquette*, 564 tons gross, 150 horse-power, built at Renfrew in 1863, and registered at Liverpool in the name of M. G. Klingender. She cleared for Bermuda in October of that year, under command of Captain G. H. Corbett and

finally reached Wilmington, where she was sold in 1864.

One very curious vessel was the Baghdad Packet, a galvanized-iron paddle steamer of 141 tons gross and 60 horse-power. She was a two-masted schooner-rigged vessel, with elliptic stern, built at Liverpool in 1863, and registered as owned by Edward McDowell. She cleared from the Mersey on 3 February 1863, with a crew of thirteen men, for Matamoras, and her registration bears the endorsement: 'Sold at Galveston, 1866.' Additional information regarding this small vessel would be welcomed. Another small craft was the Alliance, 52 tons, 85 horse-power, built by Tod and MacGregor in 1857. She had a double hull with paddle-wheel in centre and paddles at each end, a strange craft for the North Atlantic voyage! Owned by L. G. Watson, of Nassau, she was captured by the Federals off Savannah on 12 April 1864, and after the war found her way to Australia, where she was wrecked.

One of the ships selected personally by Captain Bulloch was the iron paddle steamer Laurel, 386 tons gross, 140 horse-power, built by A. & J. Inglis, in 1863. She had two bell-mouthed funnels and proved a strong, roomy sea-boat, with moderate draught and a speed of thirteen knots. After four months' service on the Clyde, she was sold to Bulloch and took out stores to the Confederate raider Shenandoah at Madeira and then, changing her name to that of Confederate States, she became a blockade-runner and survived the war, being sold to British owners and re-named Walter Stanhope. In 1869 she was converted into a screw vessel of two masts and single funnel, and was later owned by Peter Hutcheson, of Glasgow, as the Niobe.

Among the well-known Clyde steamers sold to the blockade were the ill-fated paddle steamers *Iona* (*I*) and *Iona* (*II*). The first, built by J. & J. Thompson, for David Hutcheson and Co., was a one-masted, two-funnelled steamer of 174 tons, 225 feet length, and a speed of seventeen knots. She was employed by Hutcheson for eight seasons until sold in 1862 for blockade-running purposes, but while en route from the Clyde

to America and while trying to slip away without lights, she collided with the steamer Chanticleer and sank stern foremost. The second Iona came from the same builders in 1869, and after serving a season with the Hutcheson firm was handed over to the blockade. She was a larger vessel of 386 tons gross and 24 feet longer than her predecessor, and reached a speed of eighteen knots. Her elegant saloon (afterwards built on to the famous third *Iona*) and fittings were removed and she was greatly strengthened for her new vocation, but after leaving the Clyde she was wrecked on Lundy Island, thirty-nine of her crew under Captain Chapman being saved.

Many exciting and stirring incidents concerning the blockade are to be found in contemporary British newspapers, and they reveal the great hazards which officers, engineers and seamen were prepared to undertake. On one occasion the little twin-screw steamer Don, commanded by Captain 'Roberts' (who as Hobart Pasha commanded the Turkish Navy in the Russo-Turkish War of 1877) was chased by a fast Federal cruiser. To increase speed, the cotton which the Don was smuggling out of the Southern States was moved aft to immerse the screws. Still the cruiser gained. The chase occurred near the Gulf Stream, and just at a point where the current runs at two to three miles an hour. The Don crossed the ripple and followed the stream, when she commenced to gain on her

pursuer and held on until night-fall, when she escaped.

In 1863, the Isle of Man Steam Packet Company's steamer Douglas, an iron paddle vessel of 312 tons gross, was purchased by Fraser, Trenholm and Co., Liverpool, and renamed the Margaret and Jessie after leaving the Mersey with a crew of forty men under Captain Tom Lockwood, and with her upper works altered, coated with grey paint and carrying two or three guns. Her career was brief but exciting, for she proved perhaps the most famous of the 'runners." In 1863 she was sighted off Abaco by the Federal cruiser Rhode Island and chased to Eleuthra in the Bahamas and fired upon when only two hundred and fifty yards from shore. The gunboat rained shot and shell at her, many of the missiles passing beyond and striking shore. At length a shot penetrated her boiler. Another struck her bows and she had to be beached. Later, she was captured after a stiff fight off Wilmington, with fifty people on board, including two ladies. This sturdy two-funnelled steamer was built by Napier in 1858, and when captured the Federals converted her into a gun-boat and re-named her Gettysburg under which name, in 1864, she succeeded in capturing the blockade-runner Lilian (Captain Maffitt) off Wilmington, one of the fastest vessels in the trade.

In 1863, there was launched from the yard of M. Pearse and Co., Stockton-on-Tees, the iron screw steamer The Southerner, 1,980 tons gross, 300 horse-power. She was described as 'fitted with topgallant forecastle and poop deckhouse, with deck-house continuous fore and aft as in the Inman liners.' Under the poop deck she had accommodation for sixty-four passengers. Upon arrival at Liverpool, her register was endorsed by an entry covering a bill of sale to C. K. Prioleau, and she was announced as to run between Liverpool and Charleston, but this attempt to openly run the blockade with passengers apparently did not fructify, for a further bill of sale, dated 8 December 1863, in favor of Fernie Brothers, of Liverpool, was recorded. She was purchased by a syndicate of local merchants and ship owners who, thinking that the prospects of a Confederate victory were certain, planned to establish a direct steamer service from the Mersey to the Southern States, but the fortunes of war decided otherwise and she proved to be the pioneer ship of the National Line which loomed largely in the North Atlantic travel during the late part of last century.

Much more could be written of the blockade-runners, and a list of several hundred of them has been compiled for publication in more propitious times, but perhaps this short sketch of a few of the craft involved may stimulate research among United States readers and thus help to concentrate information on a subject which hitherto has received little attention from naval historians. Furthermore, while the existence and activities of the blockade-runners proved a most costly business to both belligerents, there can be little doubt that the resulting high standard of seamanship, engineering skill, courage and innovation in ship design and construction largely influenced the development of the large North Atlantic craft which for the past sixty or seventy years have done so much to cement Anglo-American friendship, and from that aspect alone

the study is worth while.

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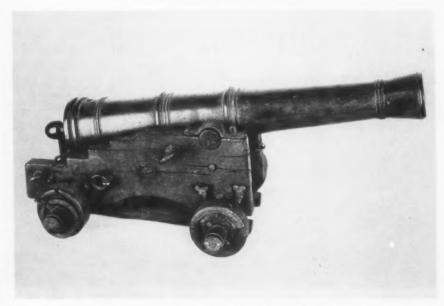
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French gun imported in the Holy Heart of Jesus, 1779 State Capitol Grounds, Raleigh, North Carolina



Contemporary model of a French naval gun (original carriage)

Courtesy of the owner, Philip B. Wallace, Philadelphia





Hampton Boats under sail



A Hampton Boat at Long Island, Casco Bay Reproduced from In and about Portland (Portland: C. S. Woolworth and Co., copyright 1906)



The Hampton Boat

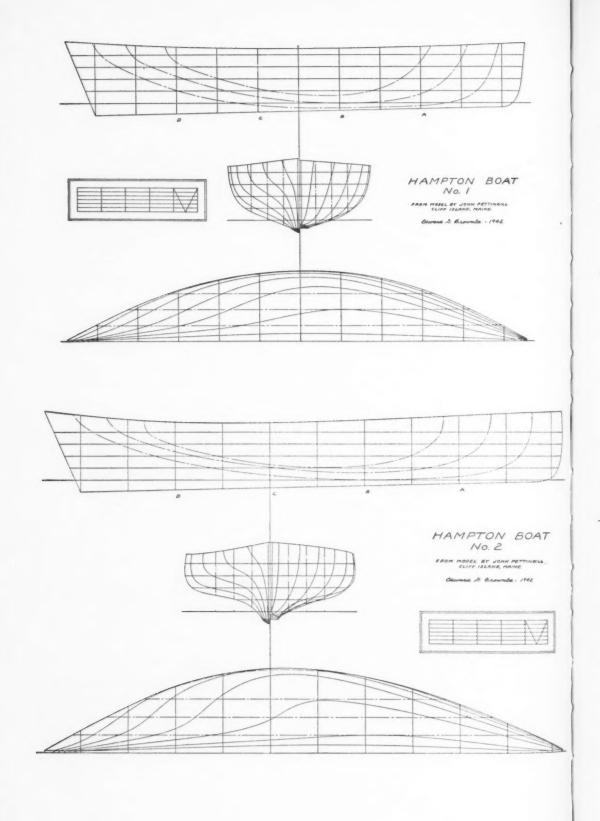
BY PHELPS SOULE

HE discussion concerning the origin and spelling of the Hampton boat interested me greatly, for I remember well these smart, weatherly craft as used by the Casco Bay lobstermen and clammers in the nineties.

Through the good offices of Dr. Orville F. Rogers, a summer resident of the Bay, I obtained from Mr. Ward Bickford, of Old Orchard, Maine, five builder's half-models, representing the two main developments of the sailing Hampton boat. These came from the shop of John Pettingill, a well-known boat builder who lived and worked on Crotch (now Cliff) Island, Maine. Of these models, the two sharp-sterns, sometimes called Crotch Island pinkies, are of the first true Hampton design, and tend to refute the belief that the type developed from a square-sterned craft resembling a ship's longboat. The other three models are of the square-sterned variety, the second development before motors took the place of sail and oar.

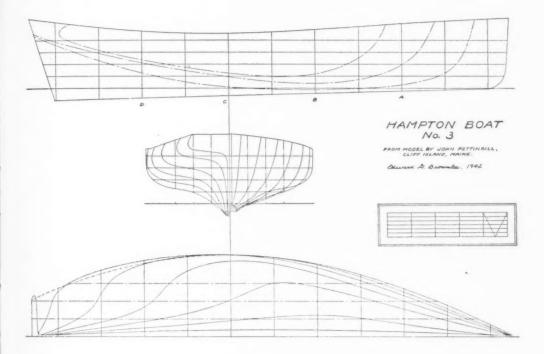
The lines of all five half-models are presented herewith. The sail and arrangement plans have been drawn from scale sketches furnished by Mr. Bickford, himself a builder formerly of Crotch Island, and familiar with Hampton boats all his life. He has checked the final drawings, so we may be sure that the details are correct. It is impossible to identify the models with specific boats since John Pettingill, who used them, has been dead for many years. No comment on the lines seems necessary except to say that in Mr. Bickford's opinion these boats are typical, with no extremes of any sort in their designs.

It has been suggested that the name 'Hampton boat' is somewhat later in its usage than the period when Captain Collins assembled the models now in the United States National Museum, but this is disproved by ample evidence. The earliest use known is well before Collins's time, and is to be found in Audubon's *Delineations of American Scenery*. In the course



of a trip to Labrador in 1833, the great ornithologist saw the boats in use on Maine and Massachusetts vessels. He wrote of them:

A vessel of one hundred tons or so is provided with a crew of twelve men, who are equally expert as sailors and fishers, and for every couple of these hardy tars a Hampton Boat is provided . . . at three in the morning the crew are prepared for their days labour and ready to betake themselves to their boats, each of which has two oars and lugsails.¹

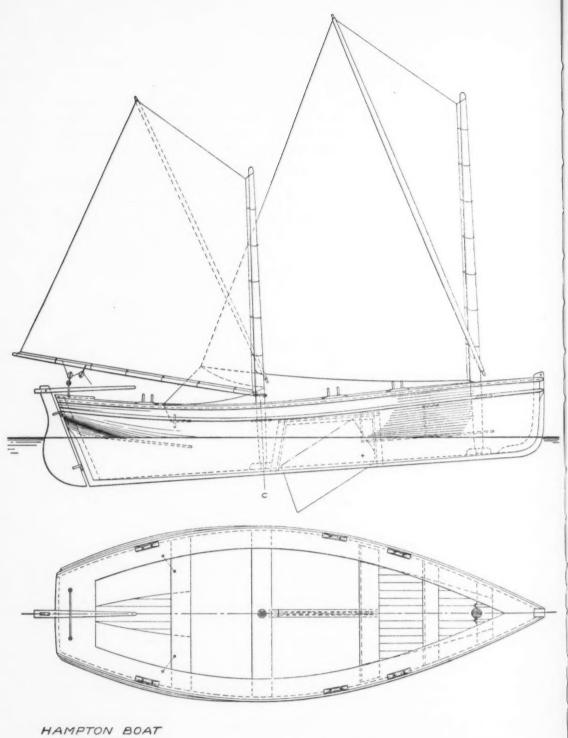


That carries the name back almost a full half-century before Collins. Furthermore it does not seem to have been lost. Thirty-odd years later Elijah Kellogg, pastor of a church at Harpswell, Maine, knew the name and the origin of the boat, for in one of his books he wrote:

A fisherman wants a boat, too, that is smart, stiff to bear a hard blow, buoyant, will mind her helm, and work quick to clear an ugly sea, and sail well on a wind . . . There are boats now built at Hampton or Seabrook that would beat into Boston Bay, with a man in them that knew how to handle them in a gale of wind, when a ship couldn't do it.²

¹ John James Audubon, Delineations of American Scenery and Character (New York, 1926), pp. 230-233.

² Elijah Kellogg, The Young Shipbuilders of Elm Island (Boston, 1870), p. 259.



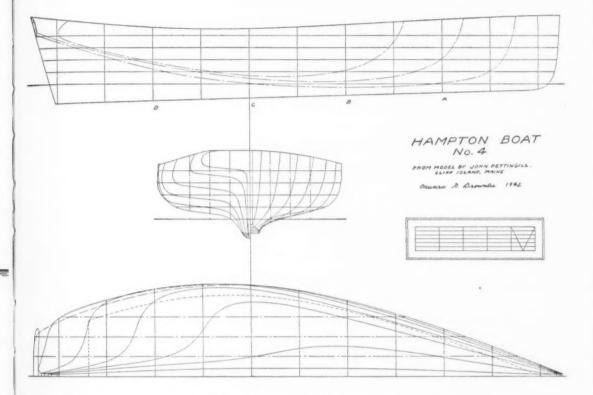
HAMPTON BOAT No. 3

SAL PLAN AND ARRANGEMENT DRAWN FROM INFORMATION FURNISHER BY HR WARD A BECKTORE BOAT SULLER , OF OLD ORINARD BENEM, MAINE.

Edward & Brownlee - 1942



These two quotations carry the name from a half-century before right down to Collins's time, but the boat is older even than Audubon's Labrador trip. While apparently it cannot be traced further with written records, the origin of the boat is so closely associated with the name that one can be sure it has always been attached to the type. The association should also be sufficient to fix the correct spelling, 'Hampton.' ³



In the first decade of this century Mr. Warren Watson became interested in the Hampton boat and gathered all the data then available about the type. He learned that the early settlers in Maine had to a large degree used whaleboats, or, as the smaller ones were called, reach boats, in the fisheries. These were not particularly good sailers. Then as the fishermen began to go farther out to sea, more powerful boats were wanted. The demand was supplied by a shipbuilder at Seabrook, New Hampshire, named Enoch Chase. In 1805 he is said to have built a clinker-planked

³ Investigations by Mr. Charles P. Emerson (See The American Neptune, I [1941], 173) entirely independent of my own have brought the same conclusion.

⁴ Motor Boat, VI, 7 ff.: Warren Watson, The Hampton Boat.

boat, twenty-two feet long with a moderately sharp bow and a pinkie stern. She was given a large foresail and a smaller mainsail as a working rig, with a jib set on a detachable bowsprit to be used in going to and from the fishing grounds. She had a full-length wooden keel about a foot deep, and carried iron or sand ballast. The boat found favor, and for years the type was built by Chase and later by Locke Brothers, both of the Hampton-Seabrook district in New Hampshire.

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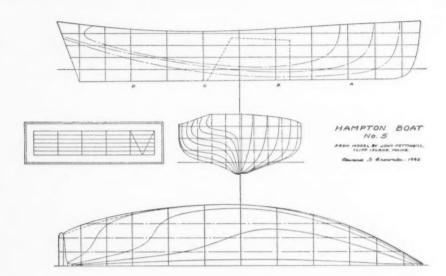
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Of course Maine builders soon began to copy the design, but no changes were made in it. The first real improvement was made by David Doughty of Great Island, Maine, who in 1868 installed the first centerboard in a Hampton. He also is credited with the first use of washboards. About 1875 to 1880 the square-stern design was introduced. In his article on the Hampton boat, Mr. H. I. Chapelle gives the lines of what is said to be the first of this design, but neither the builder's name nor the date is given. The name of this designer is unknown, but the period seems to be fairly definite. There is no doubt, however, that this is purely an improvement on the older design and not a completely new type. A comparison of the lines of both the sharp- and square-sterned types shows this conclusively.

At the same time that this change was made, strip planking was introduced by David Sinnett of Bailey's Island, Maine.⁶

⁵ Yachting, July 1938, 40 ff.: H. I. Chapelle, The Hampden Boats.

⁶ THE AMERICAN NEPTUNE, I (1941), 173; Yachting, I, 224; Motor Boat, VI, 7.

Two other developments in design eventually were added: the counter stern, and the changes caused by the use of the gasoline engine, both of which are cited by Mr. Chapelle.⁷ The first use of the engine seems to have been between 1900 and 1905.⁸

What is believed to be the last sailing Hampton boat in Casco Bay was picked up adrift in 1917 by Robert Rose of Rose's Point, who estimated that she was then between twenty and thirty years old. Nobody claimed the boat, so Rose hauled her to his barn, where she stayed for ten years. In 1927 he sold her to a Mr. Tonks, a summer resident of Chebeague Island. He sailed her for a couple of years and in turn sold her to Mr. William Swann. A few years later she went adrift in a storm and broke up. The snapshots [Plate 18] show her to be a good example of the Hampton boat. Other photographs of the type are to be found in Yachting, volume I, page 224, Motor Boat, volume VI, page 7, and the 1893 edition List of Merchant Vessels of the United States. The photograph of the Hampton boat lying at a pier on Long Island, Maine [Plate 18], is from a guidebook to Portland published about 1906.

⁷ Yachting, July 1936, 40 ff.

⁸ Yachting, I, 224; Motor Boat, VI, 7.

American Naval Guns, 1775-1785

PART II

BY M. V. BREWINGTON

EGARDLESS of origin French, English or American naval guns had certain points in common. In fact, the chief differences seem to have been those of decoration. First of all length was a prime consideration in design; the always crowded deck of a vessel was entirely unsuited for long-barreled pieces which could only be served easily ashore. 47 Experience and experiment through the course of three centuries had taught sea gunners that a cannon of fifteen calibers' length was the ideal. English guns of the period were designed on that proportion and the extant American data gives the same ratio.48 But from the English pieces examined one would be inclined to believe their founders held none too closely to the rule; in America, founders were evidently allowed considerable latitude. One iron master wrote, 'I have had but little conversation with the Marine Committee about the frigate's guns [these were the 12-pounders for the Virginia] they seem to leave it to you [the construction superintendent] and Capt Nicholson [the commander] to direct the length, 3 inches in or over.'49

Weight, too, had to be considered seriously lest the stability of the vessel be disturbed or the usual gear be found too low in power properly to handle the piece. With the length closely fixed, weight was a matter of the thickness of metal surrounding the bore. Of course a greater thickness would permit a heavier charge, thereby giving a greater striking force or a longer range. This gave rise to three classes of cannon of a given bore: bastard, legitimate, and double fortified. A double fortified 4-pounder was approximately equal in force to a legitimate 6-pounder but was by no means as accurate; a bastard 4 about equalled a legitimate 3 and was far more accurate. Although some double fortified cannon were cast, the legitimate gun was that usually found. 50 Stated in proportions to the

⁴⁷ Pennsylvania State Library, Revolutionary Papers II, 61.

⁴⁸ John Muller, A Treatise of Artillery (Philadelphia, 1779), 53; Magazine of History, IX, 75.

⁴⁹ Purviance, op. cit., 203.

⁵⁰ Pennsylvania State Library, Revolutionary Papers III, 23.

diameter of the bore, the thickness of the metal was:

	Touchhole	Trunnion	Muzzle ⁵¹
Bastard	13/16	9/16	5/16
Legitimate	14/16	10/16	6/16
Double fortified	16/16	11/16	7/16

English naval cannon and ordnance stores of the period were all under the control of the Master General of Ordnance. Whether he was also charged with the design, I have not been able to discover, but establishments giving the proportions of the various sizes were fixed for the several foundries to follow. These were all based on the diameter of a ball of cast iron of a given weight.

Size in pounds	Diameter of shot	Size in pounds	Diameter 25 of shot
3	2.77"	9	4.00"
6	3.49"	12	4.40"

It will be noted that two sizes much used by our vessels, 4- and 8-pounders, are not listed by the English. These in 1747 were said to be 'out of practise in the Navy, such excepted (only) that are in being.' 58 The diameters of these shot were 3.053 inches and 3.846 inches respectively.

Using these diameters as a basis all the other proportions can be worked out in detail. In designing guns first the length AB (see figure 2)⁵⁴ is set off: 15 diameters of the shot. This length is divided into 7 equal parts. The length of the first reinforce AE is 2 of these parts; the second reinforce EF is 1 part plus 1 diameter of the bore, and the chace FB is 4 parts less a diameter of the bore. The trunnions, in length and diameter equal to the bore, are placed just clear of and behind the second reinforce ring. The length of the cascable is 2½ times the diameter of the caliber. To fix the position of the other main lengths, divide the diameter of the shot into 24 equal parts. The vent astragal, D, is 40 parts from A. The breech AC is 24 parts. The chace astragal, X, is 25 parts before the first reinforce. The muzzle astragal, Z, is a distance equal to the diameter at the first reinforce ring behind the face of the piece. The length of the bore, CB, is one diameter of the shot less than the whole length of the gun, AB.

⁵¹ Thomas Hanson, Theory and Practise of Gunnery (Philadelphia, ca. 1780), 18.

⁵² Muller, op. cit., 56.

⁵⁸ William Mountaine, The Practical Sea-Gunner's Companion (London, 1747), 71.

⁵⁴ This plate is from Muller's Treatise. Apparently it is a copy of an official plan since with the exception of the lettering all published drawings of ordnance seem to follow it.

150

Next the diameters were set off. The bore is equal to 25 parts of the diameter of the shot divided by 24. At the vent field AD the diameter is 72 parts; at the muzzle at the base of the swell, 36 parts. All the other diameters fall on a straight line connecting the two points.

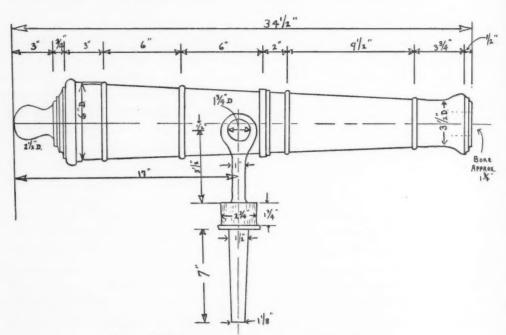


Fig. 1. British swivel recovered from York River

Courtesy The Mariners' Museum

The mouldings are: base ring 1½ inches wide; its ogee 2 inches wide. The vent astragal has each fillet .28 inch and the half round .56 inch. Breadth of the first and second reinforce rings 1¼ inches, their ogees 1½ inches. The rising of the mouldings of the first and second reinforce rings in ½ inch; the base ring in a line across the top of the first and second reinforce rings. The swell of the muzzle is equal to the diameter of the second reinforce ring. The muzzle moulding was laid out with the fillets each ¼ inch and the whole moulding of a 12-pounder and over 1¼ inches; a 9-pounder and under, 1 inch.

In designing the cascable from the hind part of the base ring to the fore part of the fillet of the button is $\frac{1}{3}$ caliber. From the fore part of the fillet to the center of the button 1 caliber. From the hind part of the base ring to the hind part of the fillet next it, $\frac{1}{6}$ caliber. Diameter of the fillet next the button $\frac{1}{2}$ calibers. Diameter of the neck $\frac{3}{4}$ caliber. Diameter

of the button 'something more than a caliber, 6'' in a 24 pounder,' that is, about 3 per cent more.⁵⁵

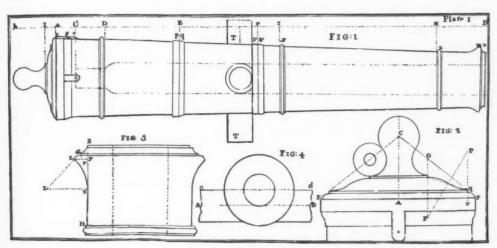


Fig. 2. British naval gun From Muller, Treatise of Artillery

Even the English admitted that French cannon were superior to their own. French pieces were bored with a windage of ½7th part of the shot whereas the English shot rattled around in a windage of ½4th. Another point of difference lay in the location of the trunnions: the French placed theirs one half caliber closer to the base ring. Muller mentions that the cascable of each size of French ordnance was different so that the caliber could be told instantly by sight or touch, a matter of some importance on vessels armed with pieces of several sizes. Unfortunately the points of distinction are not given. French shot were larger in diameter (and of course in weight) than English shot of the same denomination:

Weight of shot	Diameter English	Diameter French	Weight of shot	Diameter English	Diameter French
4	3.053"	3.196"	9	4.000"	4.188"
6	3.498"	3.659"	12	4.403"	4.610"
8	3.846"	4.027"			

And finally, French cannon omitted the chace astragal.⁵⁷

⁵⁵ These rules are adapted from Muller, op. cit., 29, 31, 32, 53.

⁵⁶ Muller, op. cit., 29, 6.

⁶⁷ Lescallier, Vocabulaire des Termes de Marine (Paris 1777), II, 3.

No guns of French manufacture definitely known to have been used during the Revolution aboard our vessels have been found. But the tables of dimensions by which they were presumably cast have been discovered. At the outbreak of the war and probably well into its closing years, French ordnance was being cast on a plan laid down in 1766. The tables of dimensions of three principal pieces of this establishment are:

Ordnance	De	17665
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				_	1 CHILLIACO	200	1,00					
		De	12			D	e 8			De	4	
No.	\mathbf{A}	В	C	D	A	В	C	D	\mathbf{A}	В	C	D
1.	7	-	7	1	6	1	9	-	4	10	6	5
2.	6	1	11	8	5	4	5	10	4	3	2	9
3.	6	6	-	_	5	8	_	-	4	6	_	_
4.	2	10	10	-	2	6	4	-	2	**	2	-
5.	_	4	-	4		3	6	2	_	2	9	3
6.	-	2	8	3	-	2	4	1	_	1	10	2
7.	_	1	6	10	-	1	4	5	_	1	_	11
8.	1	_	5	6	_	10	10	6	-	8	7	5
9.	_	9	10	3	-	8	7	3	-	6	9	8
10.	_	4	4	9	-	3	10	_	_	3	_	4
11.	_	-	3	6	-	_	3	3	_	-	3	-
12.	-	3	3	-	-	2	9			2	2	-
13.	-	_	4	4	-	_	3	3	-	-	3	1/4
14.	_	4	5	9	_	3	11	_	_	3	1	4
15.	-	4	4	9	-	3	10	-	_	3	-	4

Column A is 'Pieds'; B, 'Pouces'; C, 'Lignes'; and D, 'Points.'

Twelve points makes one ligne; twelve lignes is one pouce; and twelve pouces is one pied which equals 324 mm. or about 123/4 inches. The significance of the numbers in the left-hand column is as follows:

- 1. Longeur totale, compris le bouton.
- 2. Longeur de l'âme.
- Longeur depuis l'extrêmité de la plate-bande de culasses jusqu'au vif de la bouche.
- 4. Longeur jusqu'au devant des tourillons.
- 5. Epaisseur du metal à la culasse.
- 6. Epaisseur au plus grand renslement du bourlet.
- 7. Epaisseur à l'astragale du collet.
- 8. Diamètre à la plate bande de culasse.
- 9. Diamètre au plus grand renflement du bourlet.
- 10. Diamètre et longeur des tourillons.
- 11. Distance du fond de l'âme au centre de la lumière.

⁵⁸ Encyclopedie... Des Sciences (Geneve, 1777), VI, 164.

12. Distance de la plate-bande de culasse au centre de la lumière.

13. Distance de l'axe des tourillons à celui de la piece, mesure prise endessous.

14. Calibre des pieces.

15. Diamètre des boulets.

Twelve years after the 1766 establishment was fixed another was promulgated. Through the Service historique de la Marine a table of these proportions has been obtained. Although drawings of the pieces are to be found in the same archive, the outbreak of war made it impossible to secure copies of them. It is possible that some guns cast on this establishment may have come into American hands. The two points of variation between the two establishments were an increase in length and an increase in windage.

TABLE DES PROPORTIONS DES CANONS DE FER.

	Pieces Longues				Pieces Courtes				
No.	A	В	C	D	De 12	A	В	C	D
						A			
1.		4	5	9		-	4	5	9
2.	***************************************	4	3	11			4	3	1 1
3.	7	6	6	-		6	9	6	6
4.	_	8	7	10		-	8	7	10
					De 8				
1.	-	3	11	*****		_	3	11	-
2.	Outlides	3	9	4		-	3	9	4
3.	6	11	4	_		5	11	7	-
4.	-	7	6	9		-	7	6	O
					De 6				
1.	-	3	6	8		-	3	6	8
2.	-	3	5	2			3	5	2
3.	6	3	8	-		5	5	_	_
4.	minute	6	10	4		_	6	10	4
					De 4				
1.	_	3	1	3		-	3	1	3
2.	-	3	-	-		_	3	-	_
3.	5	6	1	11		4	8	10	mante
4.	_	6	_	_		-	6	_	_

Line 1 is Calibre ou diamètre de l'âme des pièces; line 2, diamètre des boulets; line 3, longeur depuis l'arrière de la plate-bande du culasse jusqu'à la tranche de la bouche; line 4, longeur du bouton y compris le cul de lampe et la quart de rond qui termine la culasse (à ajouter au chiffre No. 3 pour avoir la longeur totale).

Concerning guns of American manufacture very little is known. Since Muller's *Treatise* was published in this country, we can assume its rules were used to some extent at least, but there is no assurance they were followed *in toto*. The length proportion seems to have been followed within limits. As for the other design factors, the number of actual pieces now in existence is so small no generalizations can be called safe.

da

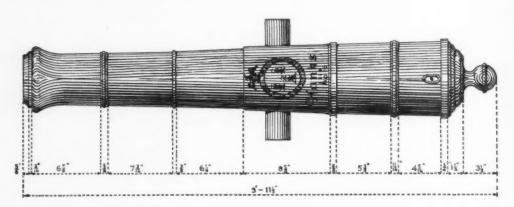


Fig. 3. American gun cast in Connecticut From Middlebrook, Salisbury Connecticut Cannon

One gun said by Middlebrook to be of eighteenth-century Connecticut origin bears some resemblance to French ordnance of the early part of the next century in its mouldings and decorations but most of the elements of its design are definitely English. A drawing of it is reproduced in figure 3. Another gun cast about 1777 at the Hill Iron Works at York, South Carolina, is to be found on the Battery at Charleston. Throughout it follows contemporary French design. A third gun evidently damaged during proof has been uncovered at the site of the Cornwall Furnace in Pennsylvania. This gun is a precise copy of English ordnance of the period.

Mounting naval guns seems to have been almost a profession in itself in the larger ports, but in some instances the work was divided into three sections, the carriage proper being made by a ship carpenter; the iron work by a shipsmith; and the axel arms and trucks by a turner. Apparently the carriages of heavy pieces were tailored to fit not only the guns but also the vessel. For instance, when the frigate *Randolph* was planned

⁵⁹ L. M. Middlebrook, Salisbury Connecticut Cannon (Salem, 1935), 50.

⁶⁰ United States Naval Institute Proceedings, May 1937, 653, 659.

the designer was able to furnish the gun carriage builder with such data as:

'Port cills from Deck 1' 8"

Up & down in the Clear 2' 3"

fore and aft in the Clear 2' 6"

Distance between the ports 7' 5"

13 ports on the Gun deck [port and starboard].'61

With that detail about the vessel and the knowledge that there were to be twenty-six 12-pounders and ten 6-pounders in the battery, the carriage builder should have been able to turn out his product to an exact fit. Actually when the guns were delivered this was not found to be the case and it was necessary to make a payment of £24.2.0 to 'William Evans for Alter'g 36 Gun carrges.' 62

Precisely wherein the guns forced the alterations in the mounts has not been discovered. Probably it was a variation from the English proportions for cannon; otherwise Evans, following a rule as he obviously had done, would have found it unnecessary to make changes. The rule for building carriages as laid down by Muller is quite definite, see figure 4.63

On the line AB set off CD equal to the distance from the center of the trunnion to the extremity of the breech; through these points draw lines EF and GH (Muller's engraver forgot to place H in the plate; it corresponds to F of course) at right angles to AB. EF equals the diameter of the second reinforce ring; GH the diameter of the base ring. Connecting EG and FH gives the width within the carriage. At a caliber's diameter outside these lines draw parallels; these give the thickness of the side pieces. The length is found by adding the length of the cascable behind GH and half the trunnion diameter plus half the truck diameter before EF. The trunnions are placed at EF with their centers ½ inch below the upper surface of the side pieces. GH is the center line of the hind axel. This piece is always 12 inches wide. The fore part of the trunnion holes is the center line of the fore axel. For its width see the table of dimensions below.

The height of the side pieces is $4\sqrt[3]{4}$ diameters of the shot at the fore end and one half of that at the hind end. The steps are 1/8th the whole length of the carriage. The lower surface of the side pieces is hollowed to make them somewhat lighter. The transom is as thick as the diameter of a shot

⁶¹ Historical Society of Pennsylvania, Humphreys Note Book, 163-164.

⁶² Author's Collection, Bills of the Randolph, fo. 4.

⁶³ Muller, op. cit., 95-97, 99.

and two diameters high, placed with the upper fore edge on a line passing through the center of the trunnion holes and with the lower edge resting on the axeltree.

Dr	MENSIONS OF	SHIP CARRIAG	GES	
	12	9	6	3
Width enclosed				
Before	14	13	11.5	9
Behind	19.5	18.5	16.8	12.5
Fore axeltree				
Length	45.5	42.5	38.8	32.5
Body Length	29.5	27.5	24.8	19.5
Height	10	9.5	9	8.5
Breadth	5.5	5.2	5	4
Arms Length	8	7.5	7	6.5
Diameter	5.2	5	4.5	3.5
Hind axeltree				
Length	45.5	42.5	38.8	32.5
Body Length	29.5	27.5	24.8	19.5
Height	5.5	5.2	5	4
Breadth	12	12	12	12
Arms same as for fe	ore axeltree			
Fore trucks				
Diameter	16	16	14	14
Breadth	4.5	4	3.5	3
Hind trucks				
Diameter	14	14	12	10
Breadth	4.5	4	3.5	3
Side pieces				
Height	20	18.8	16	13.6
Length	66	63	60	37.5
Breadth	4.5	4	3.5	3
Trunnions from				
the head	6.8	6.6	6.6	6

(Dimensions are in inches and tenths of inches)

A comparison of Muller's carriages with the original carriages built for the broadside guns of Arnold's *Philadelphia* shows that with only a variation in placing the iron work the two are identical. While no indication of color has been found it is known that American carriages were painted.⁶⁴

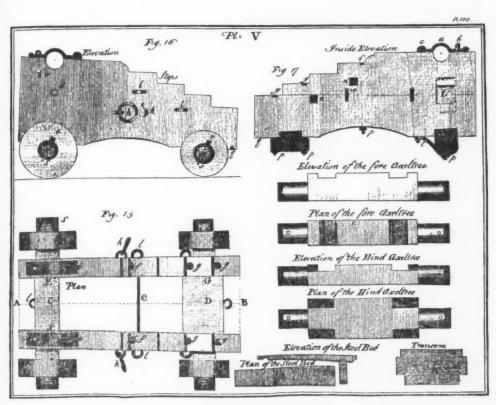


Fig. 4. Ship's gun carriage From Muller, Treatise of Artillery

The mounting of a swivel gun was the oarlock-shaped piece of iron work shown in figure 1. The shank was inserted in a socket hole bored through the rail cap probably into a timber head. Or in some instances into the top of a vertical piece of timber fitted inside the bulwarks from the waterways to the height of a few inches over the rail. Aiming the swivel was done by means of a monkey tail, a piece of iron rod one end of which was hammered flat and bent around the neck of the cascable with

⁶⁴ State of Accounts . . . Paymaster Navy Board . . . (Philadelphia, 1786), Paid to 'Nicholas Fosberg for painting gun carriages £6.7.6.'

the rest of the rod extending down and aft of the gun in a slight arc ending in a tight roll. The whole monkey tail was about 18 inches long. This type of mounting and gear were used by both the American and British navies.⁶⁵

From the materials now available on naval guns of the Revolutionary period one conclusion is inescapable. We produced nothing new and made no improvements on the existing designs of ordnance or its mounting. Towards the end of the war American inventive genius began to display itself in the creation of new devices. 66 These, however, were never proved in battle. Throughout the war we had to content ourselves with our own copies of foreign pieces and those we could buy from our allies or capture from our enemies.

⁶⁵ United States Naval Institute Proceedings, May 1936, 667; State of Accounts . . . Paid to 'William Perkins for mounting 2 swivels and for 2 monkey tails.'

⁶⁶ Anon. Cursory Observations Relative to the Mounting of Cannon . . . (New York, 1785).

Notes

A Note on Steamboat Decoration

THE study of steamboat decoration has been too long neglected, and Lieutenant Brown's article, 'Paddle Box Decorations of American Sound Steamboats,' published in The American Neptune for January 1943, makes an interesting and important analysis of the types and forms of ornament used on the early vessels. It is a study which should be continued and extended to include general patterns of decoration of steamboats because the steamboat not only reflected the standards of popular taste and popular ideas of elegance of their day, but also had great influence in spreading from urban to rural society those standards which the decorations represented. Steamboats on American rivers and sounds were not merely mechanical means for transporting freight and passengers; they were also the means of transmitting from urban centers to the remote periphery of settlement the latest examples of design, taste, fine living, and social graces. To the dwellers in the drab little towns along the banks, cut off from other towns except by waterway, the steamboat was the epitome of all that was elegant and grand-the backcountry's idea of sophistication and high art. As a result the people of the small settlements came to create their standards of taste in design and ornament from the examples of the proud white steamboats with their flashing paddles, tall stacks and gaudy paddle boxes, the best examples seen by the people. The development of American taste followed in general the development of civilization on the frontier by a pattern of movement from major base to secondary bases, and from secondary bases to outposts. The steamboat's part in the economic development of the country is understood, but the part it played in the shaping of American culture and folkways remains to be studied. As a result, Lieutenant Brown's article furnishes a fund of information for later investigators; it is to be hoped that he will continue his analysis of steamboat art.

For example, the rococo decorations of the steamboat were so widely used that they must have represented what was regarded as elegance by their builders and passengers; and furthermore that form of decoration appeared in other places, notably in domestic architecture. But did the domestic architecture influence the steamboat decoration, or, conversely, the steamboat decoration influence the domestic architecture? It would have been natural for the dwellers along the sounds and rivers to have taken their ideas of design from the finest example of design with which they were most familiar, the steamboat.

In the Pacific Northwest the peculiar interaction of social trends and influences may be seen very clearly because the area was reasonably isolated until fairly late and was economically self-contained. Primarily, the social group was from the Ohio Valley and New England, with the New Englanders exerting the most powerful influence of any group on the culture and ideals of the country. Portland, Oregon, for example, is often compared to a New England city in appearance and activity. On the inland waters of the Pacific Northwest, decoration and steamboat design can be studied in relation to the social development of the shores.

Steamboat navigation on the Columbia and Willamette Rivers began in the early 1850's, at a time when design had become fixed generally into two main types: that of the Hudson River or Atlantic coastal waters, and that of the Mississippi system, each type characterized by marked features of design. In the Northwest, a variety of conditions ex-

isted, some waterways approximating those of the Hudson and the bays and sounds of the Atlantic coast, others those of the shallower waters of the Mississippi system. But the steamboats built in the Pacific Northwest tended generally to follow the Hudson type in design, making only necessary concessions to the different conditions. The adoption of the Hudson River type came as the result of two forces being at work: first, the early shipwrights had gained their experience on Atlantic waterways, and second, the people themselves were more familiar with the Hudson River type of boat. It

was a design they expected.

The first boats launched had no more than traces of ornament and were primarily utilitarian in design; their job was simply to transport freight between frontier settlements. However, as the population increased, and small urban centers developed, decoration naturally followed, in part as a lure to passengers when competition arose. The Lot Whitcomb, launched in 1850, had a simple fan decoration on the paddle box and a plain lunette; she operated mainly between Astoria, at the mouth of the Columbia, and Portland and Milwaukie, on the Willamette, all struggling towns distinguished mainly by aspiration and rivalry. About 1858 elaborate decorations appeared on the rivers, but they came by accident, on the paddle boxes of the Wilson G. Hunt, launched in 1849 and intended for the Coney Island run in New York. Generally, however, decoration remained very simple, until the building of the Oneonta in 1862, a vessel which was distinguished because it was designed in the Mississippi style. Her paddle box had a plain lunette, with a simple, fine-ribbed fan extending to the periphery.

In the meantime, Portland grew into a small, thriving city, and other towns like Salem, Astoria, and Albany began to take on metropolitan airs; on Puget Sound, other cities were springing up, and cultural interests rapidly took shape. Fol-

lowing naturally came more and more elaborately decorated boats plying the various runs. Such boats as the Emma Hayward and the North Pacific faithfully reflected the growing sophistication of the region and carried more and more luxurious ornament. When the Wide West, a stern-wheeler, was launched in 1877, the Northwest gaped at her ostentatious elegance as she made her runs between Portland and the Cascades, but shortly she was outdone by the Yosemite, brought up from the Sacramento River where ornament was far advanced as the result of the demand for luxury by the

gold miners.

The 1880's saw the Northwest shake off its frontier habits and needs, and the decade was marked by showy decorations on the steamboats. The Olympian, built at Wilmington and brought out in 1880, carried elaborately decorated paddle boxes and lunettes, with a painted landscape of a mountain of the Cascade Range in the glory of its perpetual snowcap. And even on the minor waterways a conscious striving for elegance appeared; the Coos, a side-wheeler 56 feet long, launched on Coos Bay about 1880, had her name on the lunette, and a fan of slats on her paddle box that soared a full 7 feet above the guards. It is interesting to note that the lunette on the Coos was opposite the wheel axle, and clearly showed how the housing was placed offcenter.

In 1888 steamboating and decoration came of age in the Northwest. In that year the Oregon Railway and Navigation Company completed the queen of their fleet, the splendid stern-wheeler T. J. Potter, launched at Portland, and intended for the summer tourist and luxury run between Portland and the ocean resorts at Seaside and for winter service between the cities on Puget Sound. To meet the exacting requirements of such lush patronage, T. J. Potter was designed to offer every convenience and all possible elegance. Her decoration was elaborate, intended to at-

tract attention and the very best people. It did.

For a model, the designers of the T. I. Potter chose the crack New York boat Daniel Drew, but the resemblance, when the job was finished, was slight. From the old Wide West the upper works were taken intact and used on the new Potter with only enough changes to permit the installation of side-wheels. Her length was 230 feet, her beam 35 feet, and her depth of hold, 10 feet 4 inches. As soon as she took to the water, she went on the tourist run between Portland and Seaside; was transferred during the winter to the Seattle and Tacoma run, then returned in 1889 to the tourist service again, and during her long life, for she was not dropped from the record until 1921, she alternated between the lower Columbia and Puget Sound service.

Like the Daniel Drew, the T. I. Potter had all of the necessary decorations to fit her for the luxury trade, and the photograph, reproduced in Plate 21, from the collection of W. J. Gould of Seattle, shows her at her best. In her later days she was rebuilt and the lace-like decoration of the paddle box was removed and replaced by a small and fairly simple fan design. The photograph was taken in Seattle, probably from evidences on the original, in 1889 during her first term on the Sound. The lunette is simple, but the fan is especially notable for its careful pattern and its avoidance of the tricks of perspective used on the Hudson River prototype and similar boats. The T. J. Potter represented the finest in design, power, and ornament which the Pacific Northwest could produce and she marked at the same time the peak of steamboating on northwestern waters, for although other famous boats like the Bailey Gatzert and the Telegraph were built, the railroad made inroads on the water traffic and later boats achieved elegance without obvious ostentation. The T. J. Potter was the best representative of an age which revelled in the rococo, and of a region which showed its taste for

elaboration in the fretwork ornaments of the fine homes of the days of Portland's salmon aristocracy. It is no accident that only four years after the *T. J. Potter* was launched, Portland built new electric trolley cars which were painted a gleaming white and were trimmed in gold-leaf scroll designs and fancy lettering.

RANDALL V. MILLS

THE TOW-BOAT Seth Low: AN UNSUNG HERO

> U.S.S. Monitor Off New York Harbor, March 6, 1862

Hon. Gideon Welles Secretary of the Navy

Sir: By the pilot I have the honor to report that we passed the bar at 4 P.M., the U.S. Steamers *Currituch* and *Sachem* and the steam tug *Seth Low* in company.

The weather is favorable. In order to reach Hampton Roads as speedily as possibly, whilst the fine weather lasts, I have been taken in tow by the tug.

Respectfully, your obedient servant John L. Worden Lieutenant, Commanding.¹

We shall not be concerned further with the little *Monitor* whose epic contest with the Confederate *Virginia* (ex-*Merrimac*) revolutionized naval warfare, and whose few hours of inconclusive battle made obsolete the existing navies of the world. Suffice it to say, were it not for her timely arrival at Hampton Roads on the evening of 8 March 1862, the whole course of history might well have been changed.

Every work of American history from school-book to weighty tome chronicles the *Monitor's* hasty departure from New York [despite her incomplete state], invariably mentioning the *Seth Low* whose sturdy tow-line thus became an instrument of destiny. It is of course true that had it not been the *Seth Low* it would

¹ Official Records - Navies, Series I, VI, 684-685.

have been another,² but once the hazardous voyage³ was completed, the faithful acolyte is summarily dismissed to fade into quiet oblivion. Certainly she deserves better at the hand of posterity.

The side-wheel tow-boat Seth Low (official No. 22800) was built for John B. Coffin in 1861 at Keyport, New Jersey, by the well-known shipbuilder Benjamin C. Terry, for use in New York Harbor. Her hull was of wood and she measured 1261/2 feet in length by 231/2foot beam, and 81/2-foot depth of hold; tonnage 236 31/95. She was powered with a typical, single cylinder vertical beam engine, 36 inches in cylinder diameter by 8-foot stroke, constructed by Fletcher, Harrison & Co., of New York. In compliment to New York's famous merchant in the China trade, Abiel Abbott Low (1811-1893), she was named Seth Low after his father, founder of the family branch, who had moved from Salem to Brooklyn in 1829 and set up as an importer of drugs and India wares.4 The fleet of speedy clippers owned by A. A. Low & Bros. included the famous Houqua (1844), Samuel Russell (1847), Oriental (1849) and many others, and was known the world over. Abiel Abbott Low's youngest son was likewise named Seth after his grandfather, but since he was only a boy of eleven years at the time the tow-boat was built, unquestionably the vessel was named in honor of the elder Low.

Shortly after the outbreak of the war the Seth Low was chartered by the War Department and became an army tug and was thus available when it was decided to tow the Monitor south to Hampton Roads. On arrival (the Monitor came near foundering on the way), the Seth Low continued in the service of the army within the Department of Virginia and saw useful service on the rivers and estuaries of Chesapeake Bay. Reporting to his flag officer, L. M. Goldsborough, Lieutenant A. Murray who was commanding forces in the York and Pamunkey Rivers wrote of the boat on 8 May 1862:⁵

"The steamer Seth Low, with the commands of Major Willard and Captain Ayres on board, was more than useful; she was a necessity."

Although she had towed the Monitor south over a month before, her official charter by the United States Government from John B. Coffin was not signed until 15 April 1862, the remuneration being set at \$200 per day. This was reduced to \$120 per day on 25 March 1863, the charter expiring on 31 October of that year. She evidently changed ownership shortly after for on 1 December 1863, she was again chartered by the Government at \$120, this second charter carrying on until 10 June 1865.6

At the close of the war the Seth Low was returned to private ownership and immediately went from Virginia back to New York waters for on Sunday, 21 July 1865, she was advertised to go to the Jersey Coast Fishing Banks, fare \$1.00 and 'Free Chowder.'

She continued in service in and around New York Harbor and in December 1870 Fletcher, Harrison and Company built her a new boiler. In 1874 she was again running to the Fishing Banks under Captain Al Foster in company with the William Fletcher.

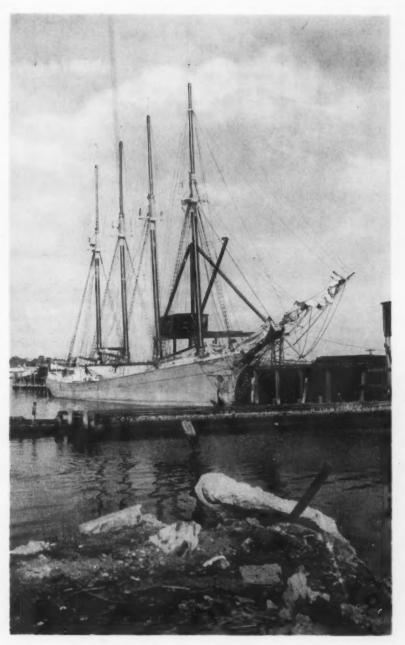
The Seth Low was sold on 22 November 1879 to William Astor by the New York Harbor Towboat Company for \$19,500, her gross tonnage being then given as 146.37, net 95.86.

⁵ Official Records — Navies, Series I, VII, 379. ⁶ From particulars furnished through the kindness of Elwin M. Eldredge.

² Commandant H. Paulding of the New York Navy Yard advised Lieutenant Worden on 4 March, two days before the voyage began, that he had 'hired the steamer James Freeborn to tow the Monitor.' Why at the last moment the Seth Low took her place cannot be determined. (Official Records – Navies, Series I, VI, 679.)

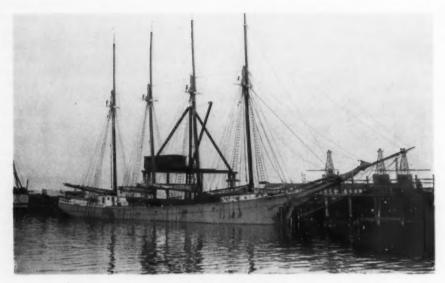
³ See F. M. Bennett, The Steam Navy of the United States (New York, 1896), pp. 295-299.

⁴ Dictionary of American Biography (New York, 1933), XI, 444, 449.

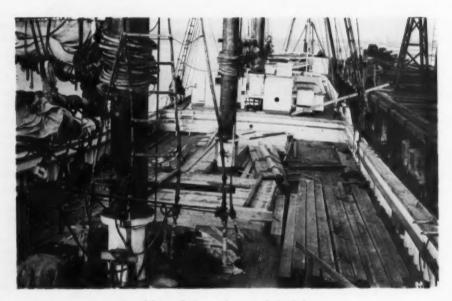


Schooner Albert F. Paul at Providence, R. I., 14 August 1939

Photograph by Robert H. I. Goddard, Jr.



Side view at dock



Looking aft from forward deck-house Schooner Albert F. Paul at Providence, R. I., 8 May 1939 Photograph by Robert H. I. Goddard, Jr.

Her career in New York waters ended in July 1881 when Astor sold her south to the St. John's River, Florida. According to her permanent Enrollment No. 11, issued at Jacksonville on 24 October 1881, she was owned by John C. L'engle of Jacksonville with W. A. Crawford as master.7 The career of the Seth Low was abruptly terminated on the afternoon of 2 November 1888, in her twenty-seventh year, when she caught fire at her dock at Trout Creek and was completely consumed. The fire was believed to have been caused by sparks driven by a stiff breeze from the stack of the steamer Mystic which was close by.8

It is fortunate that a contemporary portrait of the little vessel exists. This spirited view was painted by the marine artist, James Bard, who lived in New York and specialized in drawing pictures of the more lowly types of harbor and river craft. It is reproduced here for the first time by courtesy of its owners, The Mariners' Museum of Newport News, Virginia [Plate 22].

The careers of tow-boats are not characterized by the spectacular. Usually their days are spent in shunting barges back and forth and other duties, necessary but drab. Were it not for that accident of chance which brought the business end of the Monitor's hawser to her towing bitts, the Seth Low would have ever remained in obscurity.

ALEXANDER CROSBY BROWN

THE SCHOONER Albert F. Paul

To the many risks attendant upon the operation of sailing vessels have been added the greater and deadlier perils of war. As a result, the number of active American and Canadian coasters has decreased markedly during the last three years. A review of incomplete notes and hearsay shows that in the three-year period starting with October 1939, no fewer

7 Transcript of Enrollment in the National Archives, courtesy of John Marvin Sweeney.

8 Florida Times Union, 3 November 1888.

than sixteen three- and four-masted schooners were lost at sea or wrecked.1 Indeed, the number of casualties may well prove to be greater, owing to the scarcity of information. Among the most dreaded of maritime disasters are those in which vessels 'go missing' and, unfortunately, two of the recent losses, Doris Hamlin and Albert F. Paul, are in this

No vessel could be more undeserving of her fate than the four-masted schooner Albert F. Paul. Built with oak frames and pine planking, the Paul was an exceptionally strong and able vessel. A survey made in 1939 showed that in twentytwo years of steady service, she had hogged up only six and one half inches. After a more careful examination and overhaul in April 1941, she was found sufficiently well preserved to merit the

1 Losses in addition to that of Albert F. Paul

4m. R. R. Govin wrecked 28 October 1939, St. Anthony, Newfoundland.

4m. Doris Hamlin missing since 12 February 1940 on voyage Norfolk-Las Palmas, Canary

3m. Alhambia abandoned at sea 11 May 1940, Lat. 39° 50' N. Long. 33° 25' W. 4m. J. W. Clise permanently disabled by hurri-

cane in Gulf of Mexico, 6 August 1940. 3m. Minas Prince foundered off Nova Scotia,

September 1940.

4m. Helen Barnet Gring wrecked on Cuban Coast, 23 October 1940.

3m. George E. Klinck foundered off Virginia Capes, 8 March 1941. Crew rescued by U.S.S. Wash. 3m. Frank A. Morey wrecked in the Bahamas,

May 1941.

3m. Albert H. Willis wrecked 25 October 1941 on Dartmouth Ledge, Bay of Fundy.

4m. Anna R. Heidritter wrecked 3 March 1942 on Cape Hatteras.

4m. James E. Newsom destroyed by submarine

prior to 10 May 1942. 3m. Citnalta foundered in Long Island Sound, spring 1942, after stranding on Race Rock.

4m. Theoline foundered near Panama, summer 1942, after stranding near Cape Hatteras and floating clear.

4m. Reine Marie Stewart destroyed by submarine summer 1942 when bound New York-

4m. Lillian E. Kerr run down by steamer and sunk off New England coast, about 15 November 1942, with loss of all hands.

American Bureau of Shipping classification of 'A-1' until 1945. Launched in 1917 at Milford, Delaware, by the William G. Abbott Shipbuilding Company, she measured 174.5 x 37 x 14.4 feet and her tonnage was 735 gross, 661 net.

Built for the account of C. C. Paul & Company of Baltimore, Maryland, the Paul was operated by them until her sale in 1941. The owners saw to it that she was always well found and made a practice of maintaining a cash reserve for her account in the event of any possible misfortune involving salvage or some other expense. She was chiefly engaged in the Atlantic coast coal and lumber trade, with occasional trips to Bermuda and the West Indies. Because of her seaworthiness and because of her able management the *Paul* established an enviable reputation as a safe, reliable carrier. This fact resulted in her receiving a steady succession of charters during her long career. Even in the 1930's, when coasters had lost their soft coal trade between New York or Norfolk and southern ports and when lumber charters were rare, she was kept busy, while other schooners were idle.

From 1924 until 1941, she was commanded by Captain Robert O. Jones, who was born near Portmadoc, Carnarvon, Wales. During the summer months, Captain Jones's wife and three children closed their home at Georgetown, South Carolina, and joined the *Paul* on her many pleasant voyages along the coast. Thus she can be added to the long list of sailing vessels which have served as homes for sea-faring families.

Since most of her trips were made without difficulty, detailed accounts of her wanderings are hard to find. Such information as is available, however, testifies strongly to her sailing qualities and seaworthiness. In the summer of 1933, the *Paul* attracted attention by running into a succession of gales. Sailing light from New York for Georgetown, South Carolina, she survived a gale off Cape Hatteras in early August. Arriving at

Georgetown, she loaded upwards of 525,000 feet of southern pine and was towed out into Winyah Bay. There, 6 and 7 September, she rode out a tropical hurricane. She then set sail for New York, but had hardly passed the Cape Charles, Virginia, lightship when, on 13 September, she encountered a severe northeaster. Finding the going too hard, she ran for shelter and anchored off Cape Henry on the fourteenth. Later, when this anchorage proved unsafe, she was towed to Hampton Roads, where she remained during the full force of the storm from 15-17 September. She then proceeded and arrived at New York 29 September, after an unusually hard two months of sailing.

Her only serious difficulty was experienced in January 1938 when, bound from Jacksonville, Florida, to Baltimore, she sprang a leak in heavy seas 350 miles southeast of Cape Henry. She was kept afloat by her cargo of lumber and eventually towed into Hampton Roads.

Her seaworthiness is perhaps best illustrated by her behavior during a hurricane encountered in November 1939, while bound light from Bermuda for Jacksonville. Shortly after leaving the island, Captain Jones picked up a radio warning to the effect that a hurricane was moving northward out of the Caribbean area. Since it was apparent that his vessel would be in the path of the storm, the Captain altered his course so as to bring her into the northwest, or least severe, quadrant. Characteristically, the disturbance veered from its reported track and soon the Paul found herself headed directly for the center. The storm was of much less size and intensity than the New England hurricane of 1938, but nevertheless, the wind was blowing straight out and set the old vessel over on her beam ends as its full force caught her with unshortened sail. Staunchly, she righted herself and carried on with only the loss of two jibs until she reached the center. During the let-up, the crew scrambled to take in sail but did not

Arrived	Date	Days	From	Cargo	Remarks
Providence, R. I.	5 May 1939	15	Jacksonville, Fla.	Lumber	
Perth Amboy, N. J.	11 June 1939	9	Providence	Light	For drydock and overhaul.
Jacksonville	June 1939		Port Reading, N. J.	Coal	Sailed about 14 June.
Sapelo Sound, Ga.	17 July 1939	1	Jacksonville		To complete loading of cargo.
Providence	9 August 1939	10	Sapelo Sound	Lumber	Lay idle until October.
Newport News, Va.	13 October 1939	70	Providence	Light	To load.
St. George's, Bermuda	28 October 1939	12	Newport News	Coal	1,026 tons cargo.
Jacksonville	11 November 1939	00	Bermuda	Light	Weathered a hurricane on this trip.
Providence	9 December 1939	10	Jacksonville	Lumber	507,000 feet at \$7.50 per thousand.
Newport News	9 January 1940	14	Providence	Light	Three days from Newport, R. I.
Bermuda	22 January 1940	1	Newport News	Coal	
Cape Haitien	9 February 1940	1	Bermuda	Light	To load.
Baltimore, Md.	20 March 1940	65 C	Cape Haitien	Logwood	Passed in Cape Henry 17 March.
Newport News	28 April 1940	-	Baltimore	Light	Drydocked at Norfolk.
Bermuda	9 May 1940	9	Newport News	Coal	
Jacksonville	3 June 1940	18	Bermuda	Light	To load.
Portland, Me.	27 June 1940	11	Jacksonville	Lumber	
Cape Haitien	11 August 1940	29	Portland	Light	To load.
Baltimore	16 September 1940	10	Cape Haitien	Logwood	
Jacksonville	8 October 1940	7	Baltimore	Light	To load.
Portland	6 November 1940	13	Jacksonville	Lumber	On 5 November, landed sailor with broken arm to Coast Guard Cutter Cayuga, off Cape Ann.
Norfolk	3 December 1940	œ	Portland	Light	Then made two trips to Bermuda with coal after which went to Cape Haitien to load.
Baltimore	11 April 1941		Cape Haitien	Logwood	Drydocked at Baltimore and put vessel in Class A-1 until 1945.
Newport News	16 May 1941	1	Baltimore	Light	In tow, to load.
Bermuda	25 May 1941	98 hours	Newport News	Coal	Proceeded light to Cape Haitien.
Baltimore	19 July 1941		Cape Haitien	Logwood	975 tons at \$12 per ton, free of port charges.
Cape Haitien	9 September 1941	900	Baltimore	Light	To load.
Baltimore	10 October 1941	12	Cape Haitien	Logwood	Passed in Cape Henry 8 October.

have time to make everything fully secure. Hence, as she turned to run before it under bare poles, the spanker was blown right out of the gaskets. Later, when the wind abated, she was able to make for Jacksonville with a tattered jib and storm trysail serving as her only headsails.

While the Paul was not a record breaker for speed, she made many creditable passages. In May 1939, for example, she arrived at Providence, Rhode Island, fifteen days out of Jacksonville. She took only five days from the latter port to the latitude of Atlantic City, New Jersey, but head winds then intervened so that she was ten days completing the last two hundred miles. In May 1941, she made a good run of four days, two hours, from Newport News to Bermuda. Although preceded by a slow, thirty-two-day, outward bound run, her final trip for C. C. Paul & Company, from Cape Haitien to Baltimore, was made in the excellent time of twelve days.

Since she was known to be a successful vessel, the Albert F. Paul attracted the attention of many sea-faring men along the coast. Among these was Captain James L. Publicover of Dublin Shores, Nova Scotia. For many years, Captain Publicover has held charters to carry baled wood pulp between Nova Scotia and New Haven, Connecticut. In 1939, he found that the four-master Lillian E. Kerr was too small for this trade, which he had formerly handled in the Laura Annie Barnes.² Being approximately the same size as the Barnes, the Paul would have answered his purpose admirably. In August 1939, therefore, Captain Publicover began negotiations for the purchase of the Paul and, in fact, actually acquired her, only to have the sale disallowed by the United States Maritime Commission which forbade her transfer to British registry during the war.

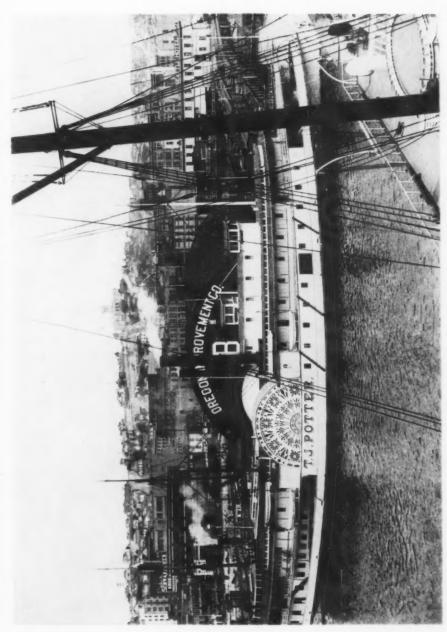
² Wrecked on Tuckernuck Shoal, Nantucket Sound, 17 January 1939. Sea Breezes, XXIV (May 1939), 57.

Prevented from disposing of their vessel, the owners decided to operate her themselves. Then began what was probably the busiest and most profitable period in her entire twenty-five years of service. As shown by the accompanying table, she was principally engaged in a three-cornered trade—coal to Bermuda, light to Haiti and logwood to Baltimore -varied by occasional trips from Jacksonville to New England with lumber. As rising freights increased her profits, she was kept on this familiar run. Wisely, her owners stuck to the trade they knew and were not tempted by more lucrative offers of coal to Iceland or Norway. As the war at sea was intensified, however, and restrictions on shipping increased, the operation of sailing vessels became a less and less desirable occupation. Accordingly, late in November 1941, she was sold to the Albert Shipping Company of New York.

Under her new ownership the Paul had a short career. Captain Jones having left her when she was sold, his place was taken by Captain Martino who was well known along the coast and who had handled many other schooners from time to time. In December, she carried a cargo of coal to Bermuda, proceeding thence to Turk's Island to load salt. She has been missing since 21 or 22 February 1942 when she sailed from Turk's Island for Norfolk. About 16 April 1942, the four-master Herbert L. Rawding arrived at Baltimore from the West Indies after having been through a severe storm in an area which lay athwart the course probably followed by the Paul.

It was felt, in shipping circles, that the same storm had caught both vessels. Hence, her loss may be ascribed either to unusually bad weather or to the everpresent submarine menace. Although the Navy has never announced the loss of the *Paul*, it has listed Captain Martino as missing and, since he was her last known commander, it is likely that she, too, is considered lost.

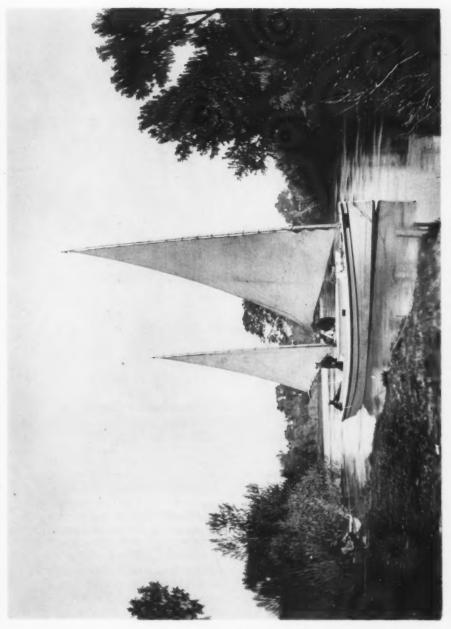
ROBERT H. I. GODDARD, JR.



T. J. Polter, Oregon Railway and Navigation Co. steamboat, 1888
Reproduced from a photograph taken at Seattle about 1889 owned by IF. J. Gould, Seattle



Paddle-wheel tow-boat Seth Low, 1861-1888 Contemporary painting by James Bard in The Mariners' Museum, Newport News

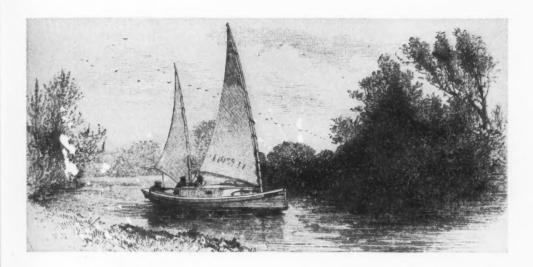


Sharpie Nettie on the Truckee River, Nevada, in 1867
Photograph by T. H. O'Sulliwan, reproduced from the negative in The National Archives



New York Harbor Lighter, about 1913

Reproduced from a photograph in the Cropley scrapbook collection,
Division of Engineering, United States National Museum,
through the courtesy of Frank A. Taylor



THE Nettie

Among glass ate photographic negatives of the period 1860-1870 recently accessioned by The National Archives there appeared an unidentified plate depicting a typical New England sharpie. The name was clearly decipherable; it was the Nettie. In view of the rarity of representations of craft of this type it appeared desirable to examine the find with care. Study by Miss Josephine Cobb of the Divis of Photographic Archives and Research established the fact that the negativ was made by T. H. O'Sullivan, a fame is photographer employed by Brady it he compilation of his photographic h. .ory of the Civil War, and that the photograph had not been made in New England but of all places on the Truckee River in Nevada in 1867. Early in this year, a War Department surveying party, directed by Clarence King, left California and proceeded eastward arriving finally at the Truckee River. Here, the Nettie was secured for use as a transport to carry the party, and supplies down the hazardous Truckee River to Pyramid Lake. The photograph herewith reproduced [Plate 23] was made in the course of the voyage downstream.

Harper's New Monthly Magazine [vol. 39, September, 1869, pp. 465-475] contains a partial account of the expedition under the title 'Photographs from the High Rockies' and includes a number of wood engravings made from the original photographs. One of these is a reproduction of the photograph of the Nettie [Figure 1.] Comparison of the wood engraving with the original photograph however will reveal considerable variation. Additional data may be gleaned from the following quotations from the text: 'The Truckee has its source in the Wabash Mountains, [sic., in the reports of the expedition mentioned above rendered "Wahsatch"] from the canyon and gorges of which flow brooks that may be traced to living springs of almost any mineral property that one may desire. These brooks combining form the Truckee. On this river the Nettie, a boat at which a single glance was all that was necessary to convince a man reared on the rugged coast of New England that the craft was the handiwork of an artisan who had built boats for New London fishermen. She was a perfect model of her class.

'The pack animals were left in charge of the men who were not desirous to visit Pyramid Lake, while into the *Nettie* were stowed provisions and articles of actual necessity, among which may be mentioned the instruments and chemicals necessary for our photographer to "work up his views."

'To sail or float down the rapids of the Truckee, in a boat of the *Nettie's* build was an undertaking that, prior to this time, had not been accomplished. Between the rapids of the stream lay stretches of deep still water, through which the boat glided, propelled either by sail or sweeps . . . '

After a hazardous voyage down the Truckee through the rapids, the *Nettie* reached Pyramid Lake. There, she served as the expedition's vessel-of-all-work; and there the story ends. A diligent search among the manuscript and printed records of the expedition affords no additional information about the *Nettie*. The name of the builder, her history before and after the voyage to Pyramid Lake, are unknown. Possibly additional information may be secured from early newspapers and records now inaccessible to the writer.

A Note on *DNB* and the Evacuation of Martinique, 1759

THE eminent naval historian Mr. J. K. Laughton, in his article on Admiral Sir John Moore in the Dictionary of national biography gives as one of the reasons for the evacuation of Martinique in January 1759, by the expedition which thereupon turned to Guadeloupe and conquered that island, the statement that the approaches to the island's chief citadel. Fort Royale, were heavily mined. This statement is undoubtedly based on a contemporary pamphlet by an anonymous writer who called himself 'I. J., a lieutenant in the navy,' entitled Candid reflections on the expedition to Martinico, with an account of the taking of Guadeloupe (London, 1759).1

'I. I.,' writing as an eye-witness, wrote

that when the British fleet was sighted. three thousand Negroes were sent to mine the land approaches to the citadel of Fort Royale. After disembarking, the first line of attackers passed over the mined area and the French were set to touch off the explosives when a carpenter, disaffected because of a wage dispute concerning his services in the preparation of the mine, betrayed the French defenders by cutting off 'one of the canals of communication.' He then deserted to the British, told Major-General Peregrine Thomas Hopson of the danger, and Hopson ordered the British troops to withdraw. The French lighted the train, but only a few of the powder barrels exploded. The veracity of the carpenter being proved by the explosion, a true account of the defenses was easily extracted from him. 'J. J.' himself then made his 'escape' from the French and gave additional information to the co-commanders of the amphibious expeditionary force. On the basis of these facts' the British evacuated.

The present writer rejects this story entirely, and regrets that it crept into such an excellent and much-used reference work as the *Dictionary of national biography*. The reasons for rejection follow

(1) Not a word of this event occurs in any of the official correspondence which passed between Pitt and his commanders.² (2) None of the other observers who have left accounts of the withdrawal from the island mentioned the mine or

¹ The pamphlet was summarized in *The gentleman's magazine*, XXIX (June 1759), 285-286.

² Colonial office 5/215, 1757-1763, dispatches of the secretary of state 'To Govrs. and Commanders in the West Indies, from 1757 to 1763,' transcripts in the Library of Congress; Colonial office 110/1, lettered 'Guadelupe [sic] Genl. Hopson Genl. Barrington and Come. Moore &c. from 1758 to 1761,' transcripts in the Library of Congress. Much of this matter is printed in William Pitt, Correspondence of William Pitt, when secretary of state, with colonial governors and military and naval commissioners in America, Gertrude Selwyn Kimball, ed., 2 v. (New York, 1906.)

'I. J.' in any way.3 (3) It would have offered a chance to use a superb alibi for the rather inglorious withdrawal, yet none of the naval or military officers cites it. (4) It was just the sort of sensational occurrence to have been remembered and entered in the various journals kept of the expedition, (5) Brigadier-General Haldane, whose account is certainly authentic, and probably truthful, explicitly says 'contrary to our expectations not one man deserted from the enemy to us.' 4 (6) Internal evidence shows that the man represented by 'I. I.' was a determined political enemy of Pitt, who in every way attempted to make the Secretary appear ridiculous in his direction of the campaign. (7) Internal evidence of another kind is the fact that where the narrative agrees with the other accounts there is a clear parallel with the dispatches of Moore, Hopson and Barrington (Hopson's successor) which were sent to Pitt, and by him passed on to The gentleman's magazine and other public prints. (It is noteworthy that the reviewer who noticed 'J. J.' and his work for The gentleman's magazine did not observe the parallel although even a casual reading of the dispatches and the pamphlet in question makes it very clear.)

It is this writer's opinion that the anonymous author of the mine fantasy was not out of England in the first half of 1759.

MARSHALL SMELSER

Saint Louis University.

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⁸ Brigadier-General George Haldane's 'proceedings,' covering the period 15-25 January 1759, Newcastle papers, Add. MSS. 32887, f. 3947, 9397, British museum, transcripts in Library of Congress; 'An account of the expedition against the islands of Martinico and Guadeloupe,' apparently by a naval officer, in Loudoun papers, letters and enclosures from Walter Pringle, Huntington library; Robert Beatson, Naval and military memoirs 1727-1783, 6 v. (London, 1804); Captain Richard Gardiner, Account of the expedition to the West Indies against Martinico, 3d ed. (Birmingham, 1762); 'Journal of an officer,' enclosed by Hopson in Hopson to Pitt, 30 January 1759, Colonial office 110/1.

4 Haldane's 'proceedings,' loc. cit.

THE LATER HISTORY OF AMERICAN SAILING-SHIPS 'SOLD FOREIGN'

Vessels built at Boston, Massachusetts

James Maury. Bark, 395 tons, built 1826 at Boston, Masssachusetts.

Sold to Great Britain c. 1867 renamed Live Oak [of Liverpool]. Abandoned 26 March 1874 in 48° N, 26° W.

Vasco de Gama. Ship, 1,095 tons, built 1849 at Boston, Massachusetts.
Sold to Great Britain 1864 renamed Magnolia [WHLC of South Shields].
Lost 10 May 1878 on Shag Island, Gulf of St. Lawrence, from Lisbon in ballast.

Daniel Webster. Ship, 1,311 tons, built 1850 at Boston, Massachusetts.

Sold to Great Britain 1874 renamed Harewood [wrgg of Newcastle]. Sprang a leak and abandoned 29 October 1877 in 46° N, 37° W, wind force 12, on voyage Quebec-Newcastle, timber.

John Bertram. Ship, 1,080 tons, built 1850 at East Boston, Massachusetts, by Elwell & Jackson.

Sold to Germany 1855 [of Hamburg] and to Norway 1874 [of Tonsberg]. Abandoned 17 March 1883.

Moses Wheeler. Ship, 978 tons, built 1850 at Boston, Massachusetts.

Sold to Great Britain c. 1864 renamed *Emily* [TWFB of Liverpool]. Wrecked 5 February 1876, River Tees, wind force 9.

Chariot of Fame. Ship, 1,640 tons, built 1853 at East Boston, Massachusetts, by D. McKay.

Sold to Great Britain 1868 [of Liverpool]. Missing since 22 March 1870 on voyage Rangoon-Falmouth.

Fearless. Ship, 909 tons, built 1853 at East Boston, Massachusetts, by Sampson. Sold to Norway 1881 renamed Johanna [JFQD of Mandal]. Abandoned November 1891.

Great Republic. Ship, 3,356 tons, built 1853 at East Boston, Massachusetts, by D. McKay.

Sold British 1865 [of Yarmouth, Nova Scotia] and 1868 renamed *Denmark* [of Liverpool]. Sailed from Liverpool July 1871 for Point de Galle, encountered storm off Cape of Good Hope, put back to Rio Janeiro with master dead. Repaired and sailed 7 January 1872 for St. John, New Brunswick. Sprang a leak in revolving gale and hurricane and abandoned 4 March 1872 west of Bermuda.

Wellfleet. Ship, 1,353 tons, built 1853 at East Boston, Massachusetts, by P. Curtis.

Sold to Great Britain 1877 renamed Senator Weber [NHWB of Liverpool]. Sold to France 1882 and to Sweden 1884 [HRVC of Helsingborg]. Foundered March 1891.

Wizard. Ship, 1,601 tons, built 1853 at East Boston, Massachusetts, by S. Hall. Sold to Great Britain 1862 renamed Queen of the Colonies [VBSL of London] Stove in and sank 26 January 1875 near Beniquet, Brest, on voyage Batavia-Falmouth.

Enoch Train. Ship, 1,779 tons, built 1854 at Boston, Massachusetts.

Sold to Great Britain 1874 [MNGH of Port Glasgow]. Stranded 2 May 1881 Florida reef and condemned. On voyage New Orleans-Liverpool, cotton. Salved later. Abandoned 9 February 1883 in 47° N, 24° W, wind force 12, on voyage New York-Bremen, petroleum.

Fanny McHenry (later Philadelphia). Ship, 1,237 tons, built 1854 at East Boston, Massachusetts, by A. & G. T. Samp-

Sold to Great Britain 1862 renamed Sanspareil [VPFD of Liverpool]. Stranded and lost 2 October 1875, Duck Island, Newfoundland, on voyage London-Quebec.

Fatherland. Ship, 1,212 tons, built 1854 at Boston, Massachusetts, by Wm. Hall.

Sold to Great Britain 1860 renamed Swiftsure [KBPH of London]. Stranded 13 December 1883 Tripoli harbor, wind force 12.

Champion of the Seas. Ship, 1,947 tons, built 1855 at East Boston, Massachusetts, by D. McKay.

Sold to Great Britain 1860 [NWCJ of Liverpool]. Abandoned 3 January 1877 in 37° 40′ N, 30° 10′ W, on voyage Pabellon de Pica-Queenstown with 2,475 tons guano.

Commodore Perry. Ship, 1,978 tons, built 1855 at East Boston, Massachusetts, by D. McKay.

Sold to Great Britain 1860 [KNRS of Liverpool]. Sailed from Tyne March 1869 with 2,560 tons coal, arrived Point de Galle 7 July and sailed 25 idem for Bombay where she was burnt out on 28 August 1869.

Derby. Ship, 1,062 tons, built 1855 at Chelsea, Massachusetts, by J. Taylor. Sold to Germany c. 1874. [KMDR of Geestemunde]. Sold to Norway 1889 [HTWN of Arendal]. Stranded 27 April 1895, 6 miles W of Cape St. Francis, Cape Colony, on voyage Algoa Bay-Sydney, Cape Breton, 14 crew, 4 lost.

Donald McKay. Ship, 2,408 tons, built 1855 at Boston, Massachusetts, by D. McKay.

Sold to Great Britain 1860 [HGLK of Liverpool] and to Germany 1879 [QDHG of Bremerhaven]. Hulked 1885 at Madeira and later destroyed by fire.

Fair Wind. Ship, 1,299 tons, built 1855 at South Boston, Massachusetts, by E. & H. D. Briggs.

Sold to Great Britain 1865 [KBVT of Plymouth]. Abandoned waterlogged 26 January 1881 in 48° 53′ N, 24° W, wind force 10, on voyage Pensacola-Penarth, South Wales, with 1,200 loads pitch pine.

Wilberforce. Ship, 1,145 tons, built 1855 at Chelsea, Massachusetts.

Sold to France c. 1873 renamed Petit Poucet [of Nantes]. Sold to Norway 1877 renamed Einar Tambarskjelver [HQNF of Skien]. Out of Register by 1904.

Endymion. Ship, 1,299 tons, built 1856 at Boston, Massachusetts.

Sold to Great Britain 1860 [QBJR of Liverpool].

Abandoned 7 January 1883 water-logged in 48° 30′ N, 28° 20′ W, wind force 12, very high sea, on voyage Musquash, New Brunswick - Liverpool, 1,500 tons deals, 20 crew.

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Florence. Bark, 1,045 tons, built 1856 at Boston, Massachusetts, by S. Hall. Sold to Great Britain 1862 renamed Hypathia [vgbt of Liverpool]. Sold to Norway 1872 [HQMK of Skien]. Wrecked 16 November 1888 Clippera Rocks, Anglesey, on voyage West Bay, Nova Scotia-Liverpool, deals, 15 crew. Princess Royal. Ship, 1,201 tons, built

1857 at Boston, Massachusetts. Sold to Great Britain 1861 [TKMW of Greenock]. Sprang a leak 10 April 1872 in 56° 30′ N, 27° 50′ W, wind SW, force 10, one man lost. On voyage Greenock-Quebec. Abandoned 10 November 1881 water-logged and deck load adrift in 44° 35′ N, 42° 39′ W, wind NNE-NNW, force 10, high confused sea, on voyage Quebec-Glasgow, deals.

Alhambra. Ship, 1,313 tons, built 1859 at East Boston, Massachusetts, by Donald McKay.

Sold to Great Britain c. 1864. [VPBS of Liverpool]. Rebuilt and returned to American Registry 1875, of New York. Sold to Germany 1880 [of Bremen]. Lost by collision 30 October 1883, 20 miles NW1/2W South Stack. On voyage Liverpool-New York, coal.

Isabella. Ship, 1,100 tons, built 1859 at Boston, Massachusetts.

Sold to Great Britain 1864 renamed Fearnought [VNQM of Liverpool]. Abandoned 15 October 1890 in 44° 34′ N., 43° 36′ W, waterlogged, on voyage St. John, New Brunswick-Fleetwood.

Leaping Water. Ship, 1,098 tons, built 1859 at Boston, Massachusetts, by Gardiner.

Sold to Great Britain 1860 [QCVT of London] and to Austria 1885 renamed *Pisino* [HQDP of Pisino]. Abandoned 26 March 1886 in 35° N, 60° W, on voyage Pensacola-Genoa, pitch pine.

Rutland. Ship, 1,028 tons, built 1859 at Boston, Massachusetts.

Sold to Great Britain 1873 [LBPM of Newcastle on Tyne]. Sailed Quebec 2 October 1886 for Greenock, shipped a heavy sea, lost deck load and became waterlogged 15 October, 17 miles S by W of Saltees, Ireland. Wind force 12, 2 men lost. Abandoned 17th off Lundy Island, towed in and broken up.

Arracan. Bark, 1,020 tons, built 1860 at East Boston, Massachusetts.

Sold to Great Britain 1873 [of Greenock]. Abandoned on fire 14 February 1874 in 3° N, 66° 35′ E, boat with five men picked up 15 March in 9° N, 75° E, and supplied with provisions and water. On voyage Tyne-Bombay, 1,542 tons coal.

Edward Everett. Ship, 1,132 tons, built 1860 at Boston, Massachusetts.

Sold to Great Britain c. 1864 renamed Forest Rights [PSKQ of London]. Sold to Germany 1878 renamed James [of Bremen]. Returned to British Registry 1886 as Forest Rights [of Cork]. Probably dismantled 1891.

Lepanto. Ship, 913 tons, built 1860 at East Boston, Massachusetts.
Sold to Great Britain 1864 [VTGH of Liverpool]. Sold to Germany c. 1876 renamed Orpheus [KMSV of Bremen]. Stranded July 1889. Sold to Sweden c. 1893 renamed Carl Fredrik [TFQP of Fjellbacka]. Sold to Norway c. 1908

after 1910, probably broken up.

Louisa. Ship, 939 tons, built 1860 at East
Boston, Massachusetts.

ксно of Christiansand]. No record

Sold to Great Britain 1863 [VFQ] of London]. Abandoned 25 December 1878 in 45° N, 24° W, wind force 10, on voyage Mexillones - Queenstown, guano.

Chasca. Bark, 572 tons, built 1861 at East Boston, Massachusetts, by J. L. Townsend.

Sold British 1886 [SLVK of Sydney, New South Wales]. Sold to Norway 1891 renamed *Josephine Marie* [HBQN of Fredrikstad]. Foundered 1898. Fred Warren. Ship, 1,168 tons, built 1863 at Boston, Massachusetts.

Sold to Great Britain 1864 [RPQG of Liverpool]. Sailed Manila 9 January 1872 for New York, arrived Algoa Bay 6 March 1872 having been dismasted on 19 February in 28° 30' S, 47° 25' E.

Lottie Warren. Ship, 1,184 tons, built 1863 at East Boston, Massachusetts, by P.

Sold to Great Britain 1864 [VLMK of Liverpool]. Sold to Holland 1882 renamed Helena [NWCK of Schiedam]. Sold to Russia 1891 renamed Primus [VDFP of Raumo]. Sold to France 1899. [KRIL of Calais]. Condemned February 1902 and sold to Uruguay. Stranded 1 January 1903 near Crossing Rock, Abaco, Bahamas, on voyage Matanzas-Philadelphia, scrap iron.

Valorous. Ship, 958 tons, built 1863 at Boston, Massachusetts, by Curtis & Tilden.

Sold to Great Britain 1874 renamed Lady Dufferin [vwgh]. Sprang a leak 30 March 1887 in 42° 25' N, 31° 50' W, and condemned. On voyage Pensacola-Belfast, pitch pine.

Volunteer. Ship, 1,081 tons, built 1863 at Boston, Massachusetts, by W. F. Weld & Co.

Sold to Germany 1875 for \$43,750 renamed Baltimore [QCSW of Bremen]. Sailed from London 19 December 1896 for New York. Foundered 24 January 1897 in 34° N, 54° W.

George H. Warren. Ship, 1,298 tons, built 1864 at Boston, Massachusetts, by P. Curtis.

Sold to Great Britain 1865 [JFRS of Liverpool]. Sold to Germany 1876 renamed Ida [QCWH of Bremen]. Condemned April 1897.

Merchant. Ship, 1,059 tons, built 1864 at East Boston, Massachusetts.

Sold to Great Britain 1874 [MLBW of Liverpool, later of Melbourne]. Missing since 5 March 1878, sailed from Port Hinchin, Queensland, for Melbourne, cedar.

Sterling. Bark, 776 tons, built 1864 at Boston, Massachusetts, by E. & H. Briggs.

Sold to Great Britain prev. 1874 [WJKD of Liverpool]. Sold to Germany c. 1876 renamed Admiral [of Elsfleth]. Sold to Russia 1886 renamed Karl [of Uleaborg]. Stranded 7 April 1895 entrance to St. Georges' harbor, Bermuda, on voyage Pascagoula-Ayr, timber.

Tiber. Ship, 1,091 tons, built 1864 at East Boston, Massachusetts, by J. Porter. Sold to Germany 1876 renamed Theodor Körnor [ocrw of Bremen] Sold to Norway 1890 of Sandefjord, Abandoned at sea March 1895.

Frederick Tudor. Ship, 1,081 tons, built 1866 at Boston, Massachusetts, by J.

Taylor.

Sold to Germany c. 1877 renamed Palme [ODFB of Bremen]. Sold to Russia c. 1893 [TNKG of Lemlan]. Stranded 24 December 1895 on Bull Sand, Dublin Bay, on voyage Liverpool to Mobile, 16 crew.

Tecumseh. Ship, 1,205 tons, built 1866 at Boston, Massachusetts, by J. L. Town-

Sold to Germany prev. 1886 renamed Otto [KNVL of Geestemunde]. Broken up March 1900.

James S. Stone. Bark, 675 tons, built 1868 at East Boston, Massachusetts, by Curtis, Smith & Co.

Sold to Norway 1891. Foundered 4 September 1892 in Bay of Biscay.

Pharos. Ship, 1,304 tons, built 1868 at Boston, Massachusetts, by J. L. Townsend.

Sold to Holland 1876 renamed Lieutenant Generaal-v-Swieten [of Alblasserdam]. Sold to Germany 1885 renamed Dora [QDHW of Bremen]. Condemned at Fayal February 1894 and sold for £618 to Portugal [HBJs of Lisbon]. Condemned January 1905.

Southern Cross. Ship, 1,087 tons, built 1868 at East Boston, Massachusetts, by

Curtis, Smith & Co.

Wrecked January 1895 salved and

sold to Portugal renamed Glama [HBLM of Oporto]. Sailed New Orleans 13 May 1905 for Oporto, ashore 22 May at Key West.

Sovereign of the Seas. Ship, 1,449 tons, built 1868 at Boston, Massachusetts,

by D. McKay.

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Sold to Germany 1884 renamed *Elvira* [opwc of Bremen]. Returned to American registry 1903 as coal barge [of New York].

Star of Hope. Ship, 1,231 tons, built 1868 at Boston, Massachusetts, by Gove &

Choate.

Sold to Holland 1876 renamed Ster der Hoop [of Amsterdam]. Sold to Germany 1885 renamed Georg [QDLK of Bremen]. Condemned 1894 after collision.

Charmer. Ship, 1,330 tons, built 1869 at East Boston, Massachusetts, by J. T.

Townsend.

Sold to Germany 1880 renamed Marie [QDJR of Bremen]. Sold to Norway 1904 renamed Sverre [KBSR of Fredrikshald]. Sold to Sweden 1914 renamed Svea [of Kivik]. Captured as German prize 1916.

Comet. Ship, 1,083 tons, built 1869 at Chelsea, Massachusetts, by Pierce &

McMichael.

Sold to Germany 1879 [QDFL of Bremen]. Sold to Norway 1900 rerigged as barkentine. Stranded 13 May 1901, 2

miles E of Channel Head, Newfoundland, on voyage Hamburg-Rimouski. Sarah Hignett. Ship, 1,418 tons, built

1896 at Boston, Massachusetts, by

Curtis, Smith & Co.

Sold to Germany 1889 renamed Henriette [QFCL of Bremen]. Sold to Spain 1894 renamed Perla de Sitges [JDCK of Barcelona], 1898 renamed Rosa Alegret and 1903 Cosme Calzada. Wrecked

October 1904.

Lucy S. Wills. Ship, 1,332 tons, built 1870 at Boston, Massachusetts, by S. Hall. Sold to Germany prev. 1886 renamed Meta [KNPR of Gestemünde]. Stranded about 9 October 1887 Heligoland, wind force 9, on voyage Scotland-Heligoland, coal.

Charger. Ship, 1,444 tons, built 1874 at East Boston, Massachusetts, by Smith

& Townsend.

Condemned at Rio Janeiro 1893 and sold to Germany renamed *Louise* [QGDM of Bremen]. Reverted to American flag 1908 under original name, as coastwise barge of Seattle, Washington. Foundered 1909 off Alaska coast.

Saratoga. Ship, 1,440 tons, built 1874 at Boston, Massachusetts, by Campbell &

Brooks.

Sold to Germany 1886 renamed *Friederike* [QDJS of Bremerhaven]. Sold to Norway 1890 renamed *Saratoga* [HDRB of Christiania]. Wrecked June 1899.

DANIEL R. BOLT

Documents

A REVENUE CUTTER DESIGNED BY SAMUEL HUMPHREYS

THE following specifications are copied from a notebook, apparently in the handwriting of Samuel Humphreys, in the Bureau of Construction and Repair, Navy Department. They appear directly before the table of offsets for Humphreys' 'Revenue Cutter for the North,' used by Howard I. Chapelle in preparing his draught of that vessel which was published in The American Neptune, I (1941), 80-81, and apparently relate to that vessel.

Rough Copy of Directions for building a Revenue Cutter

Keel of white oak to be sided
Deadwood amidship of w. o. sided
fore and after of live
oak sided
Stearn post knee of live oak to be

Stearn post knee of live oak to be fayed on the keel and to the fore side of the inner stern post and over this knee the deadwood is to be built, keeping the shortest pieces below. Four bolts are to be drove the knee viz. 2 through the knee and stern post and 2 through the knee and keel before the deadwood bolts are drove care must be taken that the deadwood bolts and stern post knee bolts do not come into contact. The bolts of the knee and deadwood to be rivetted on the under side of keel and aft side of stern post. Bolts through the knee in diam.

Bolts through the deadwood in diam.

Inner stern post of L. O. main		
stern post of L. O sided		9
Stern of L. O. sided		9
Apron of L. O. sided	1	3
The deadwood and apron bolts		0
to one foot above floating line		
of copper in diam.		3/4
Floor timbers, futtocks, Top tim-		74
bers of l. o. sided		6
To be moulded at floor heads		61/2
To be moulded at port sill or		12
plank sheer		4
To be moulded at rail		33/4
To be completely framed, frame		0/4
bolts in diam.		3/4
Every other floor timber to be		14
bolted with one copper bolt in		
diam.		3/4
The alternate floor timbers to be		14
bolted after the keelson is fit-		
ted with copper bolts in diam.		
with a drift added		3/4
Keelson of W. O. to be sided		9
Main Transom of L. O. to be		2
bolted with 2 iron bolts in		
diam.		7/8
The remaining transoms of l. o.		70
to be sided and bolts with cop-		
per bolts in diam.		7/8
Knight heads and		
House pieces of L. O. sided		9
Outside plank. The running		.,
plank of w. o. in thickness		21/4
The outside plank abreast the		/1
deck to be in thickness		3
and from that the plank will		
gradually and fairly diminish		
to the thickness of the running		
plank of bottom.		
The upper edge of the plank		
next below the plank sheer to		
be in thickness		21/2
Plank sheer of w. o. or yellow		
pine in thickness		21/2
From the planksheer to the rail		
the space will be boarded out-		

side only with narrow inch

3/4

7/8

white or yellow pine boards, fastened to stantions 27" as under. To have 5 ports on each side and 2 in the stern with shutters. No strake of plank outside from the light water line upwards amidships to be in width more than The fastenings of outs plank from keel to one foot above load water line to be of copper. The spikes may be composition, the bolts to be of copper. There will be no trenails. Each strake to be fastened to one frame, comprising 2 timbers, with three composition spikes of 6" in length (where the plank is 21/4 in. in thickness) and one copper bolt 5/8" in dia. to be drove through and rivetted inside. But bolts and Hooden end bolts of copper in dia. Cieling plan of yellow pine in thickness Breast Hooks of L. O. two below the deck hook to be fayed and fastened before the cieling is put on and fastened with copper bolts in diam. Clamps of W. O. or Y. P. in thickness at upper edge at lower edge A list or air strake 6" wide to be formed next below the strake under the clamp Beams of Y. P. sided Beams of Y. P. moulded 71/2 To be kneed at each end with one lap and one lodge, sided 5 excepting the mast beams which are to have a dagger knee in lieu of the lap knee, bolted with bolts

Deck plank, Y. P. in thickness

To be fastened with iron spikes and

Partners of mast of l. o. to be kneed

in width not to exceed

plugged

To be fitted with a trunk cabin and in other respects to correspond with draught To be coppered to the water line 8' aft and 7' forward with 24 oz. copper To have a complete set of masts and spars, the principal ones to be of the following named dimensions:-Mainmast 58 ft. whole length head 7 ft. Foremast 56' 6" head 7' Foregard 36' Topsail yard 24' Topsail gallant 16' Fore topmast 31' pole 12' Fore gaft 17' Main gaft 16' Mainboom 32' Brosput outboard 12' Lower masts and bowsprit of Y. P. if to be had the remaining spars to be spruce and to be in proportion.

To have one foresail, one mainsail, one jib and one fore topsail. Canvass No. 1. One flying jib, one square sail, one top gallant sail, one lower studdingsail, one gaft topsail of light convass. An awning fore and aft with canvass No. 2 with stantions complete. To have 3 shrouds to the foremast on each side and two on each side of the mainmast of 51/9" rope. The fore stay 7" with the remaining standing and running rigging to be in due proportion of the best Russia hemp to be patent laid and of equal fineness and strength to that used in the Navy. The blocks for sheet halyards, braces to be patent bushed. To have one hempen cable 8" and one proof chain cable one inch in dia. 60 fathoms. Two anchors each weighing 500 lbs. clear of stock. The anchor for chain cable to have an iron stock. To have all the fixtures necessary for working a chain cable. One hawser 6" 75 fathoms, one kedge anchor with anchor stock, weighing clear of stock 300 lbs. To have a capstan, cambose, Hammock stantions, waist clothes, ring and eye bolts, ring bolts for receiving tackles, 2 iron davits on each quarter for the boats. All the outside plank including the deck plank to be plained.

Forecastle floor in length about 14' to have 16 births. To have a trunk cabin with a sky-light and 2 sliding lights on each side, to be fitted with 4 births and lockers. To have a store-room between the stern frame and after bulkhead and cabin in length about — feet, to have a magazine under the cabin floor.

To have 2 store rooms (one on each side) before the cabin in length 6'. The length of cabin floor including store rooms 19'. To have 2 scuttles near the store rooms, leading to the hold. The scuttle leading to the magazine to have raised coming and cap of lead. To have the necessary bars and locks for the scuttles. To have 2 boats of suitable size. To have 2 coats of paint. To have casks sufficient to carry 1500 gallons of water.

Contributed by Clarkson A. Cranmer.

HENRY HALL'S NOTES ON VIRGINIA CANOES AND BUGEYES.

(From the note-book owned by The Penobscot Marine Museum.)

'OLD POINT COMFORT, Va. June 16, 1881. At Poquosin about 21 miles by water north of here, there are several Moores who build canoes and buckeyes of logs. I visited the place, going thither in a canoe, leaving Old Point at 8 A.M. and reaching the Point again at 5 P.M. having been on the water all of this time, except for about half an hour. One of the Moores, a large tall man, was just completing two canoes, with the aid of a crowd of tall sunburned boys, his sons probably. He thinks 50 canoes and buckeyes are built every year in this region. Many more up near York and Gloucester. The two canoes which Moore was engaged on, were about 20 feet long. The stern post measured 2' 8", and the stem 3', showing the difference in height of

the two ends. The stern being raking. the difference is about 6". These canoes were made of three logs. No model is used. The joining edges are got by means of a batten. The central log gives the stem, garboards, keel, and stern of the boat. The other two logs the bilges and wales. The three logs are almost as if hewn to two bow and buttock lines, one each side of the keel. Moore pays \$3 and \$31/2 a piece for the yellow pine logs, standing in the woods. He has gone back into the country 9 or 10 miles to get them, they being from 3 feet to 31/2 in diameter. The hauling costs more than the tree. The canoes are worth \$100 each. Moore built the buckeye J. C. Wainwright, 8 tons, burden, a few years ago. It was 40 feet long, cost \$600, and is thought to be the fastest of its kind around here.'

'The buckeye Minnehaha, log built, is 56' x 11' 2" x 33". It cost \$800 but can be built for \$700 now. Capacity about 200 bushels of oysters, Masts 39 and 50 feet raking 1 in 3 and 1 in 6. Booms 22 and 26 feet. Foresail with short gaff. Jib with 1/6 boom. Carries two tons of ballast aft of the mizen mast. From stem to heel of bowsprit 4'; to mast 4'; to truck 4" (there is 16" of deck space between this low house or trunk and the rail), from stem to after end of this house 17'; hatch and center board, same length, viz: 111/2'; hatch 5' 1" wide; high coaming; to second hatch, 7'; small mast passes through a wide beam, set in the fore end of this hatch, about a foot below the deck; after hatch 16' feet long, and having 14" of deck between the low coaming and the rail; Widths, not very accurate, but approximate: at heel of bowsprit 60"; at foremast, 7' 6"; at fore edge of fore hatch 11' 2"; at fore edge of after hatch 10' 10"; at 9' from the extreme stern 7' 2". The boat is leaner and narrower in the after body. These log buckeyes are stiffer in a seaway than the frame buckeyes.'

Queries

36. SIGNAL BOOKS. About 1817-1818 Captain Frederick Marryat's Code of Signals was reprinted in the United States. Is the location of a copy of this edition known? Can the readers of the Neptune aid me in finding Lloyd's Registers dating before 1868?

M. V. BREWINGTON

37. Poillon's Rig. Does 'Poillon's Rig' 1 refer to a marine railway operated by the Poillons or were they inventors of some improvement in the rigging of sailing vessels?

JOHN LYMAN

38. AMERICAN KETCHES. Number 281 of the third volume of Ship Registers and Enrollments of New Orleans (1942) is the document of the schooner Cultivator, 37 tons, built at Madisonville in 1826, sunk in the Mississippi in 1834, and raised and repaired in 1835. She is described as 'ketch rigged.' What other nineteenth-century examples of American ketches are known?

JOHN LYMAN

39. STEAMBOAT ENGINES. The engines of many early American steamboats are described as being of the 'square,' 'steeple' or 'cross-head' type. Does any reader know of a full description or of drawings illustrating the operation of these types?

E. W. SMALL

¹ THE AMERICAN NEPTUNE, I (1941), 47.

40. NAVAL PORTRAIT. Does any reader know of a portrait of Commodore Samuel Barron, U.S.N.?

JOHN H. KEMBLE

41. LIGHTNING RODS. Can anyone aid me with information on the use and construction of lightning rods carried by sailing vessels?

P. T. WRIGHT

42. CHINESE CHARTS. Chinese navigators are said to have used very detailed pictorial charts. Are there any examples to be found in this country?

R. W. LEOPOLD

43. SIGNAL FLAGS. An effort is being made to locate a copy of every plate of private signals or house flags issued in the United States. Will the readers inform the Editors of The American Neptune of any with which they are acquainted.

44. NAHANT CANOE. In an article on cruising along the New England coast about 1875, a type of watercraft described as a 'Nahant Pilot Canoe' is mentioned. Is anything known concerning this type?

G. B. PORTER

45. NORFOLK PILOT BOATS. About 1793-1795 the French Consul in Baltimore purchased several Norfolk pilot boats, outfitted them as privateers, and sent them to sea. At least one was taken by the British and purchased into the Royal Navy. It is said that her lines were taken off by the Admiralty draughtsmen and that the drawings have been preserved. Does anyone have a copy available in this country?

R. C. NEWBOLD

News

PEABODY MUSEUM

Salem, Massachusetts. At the quarterly meeting of the Peabody Museum Marine Associates on 25 January 1943 Mr. Stephen W. Phillips spoke on 'The South Pacific Islands in relationship to the present war.'

UNITED STATES NATIONAL MUSEUM

Washington, D. C. Frank A. Taylor, Curator of Division of Engineering, was ordered to active duty as a Captain in the United States Army in February.

WASHINGTON SHIP MODEL SOCIETY

Washington, D. C. The twelfth annual exhibition of the Society was held at the United States National Museum from 2 January to 8 February 1943. The judges were Lieutenant M. V. Brewington, U.S. N.R., Lieutenant W. M. Whitehill, U.S. N.R., and Frank A. Taylor. At the annual dinner, held on 20 February, the Founder's Cup was awarded to James W. Harbin, Jr., for a built-up model of the fishing schooner Smuggler, and the second prize in the same class to A. C. Wagner for a model of the Pacific trader Nukubule. In the class of models built from kits, Kenneth A. Foote received first prize for his model of the British revenue cutter Diligence and William E. Lee second prize for his model of a tanker. Ray F. Henry received first prize in the class of 'nautical exhibits' for a model of a 24-pounder long gun.

Notes on Contributors to The American Neptune

Lieutenant Commander Samuel Eliot Morison, U.S.N.R., has been charged by the Secretary of the Navy with the preparation of a history of the naval operations of the present war, and has spent a considerable part of the past nine months at sea in various theatres of operations.

Joanna C. Colcord, whose 'Domestic Life on American Sailing Ships' appeared in the July 1942 issue, is constantly searching in the desk drawers, trunks and attics of Maine friends and relatives for further documents on this subject, which she generously shares with readers of the Neptune.

Arthur C. Wardle, author of *Steam Conquers the Pacific*, sends from Liverpool an article on Civil War blockaderunners, which he hopes will cause American readers to publish further studies on the careers of these vessels.

Phelps Soule is Secretary of the University of Pennsylvania and Manager of the University of Pennsylvania Press.

Randall V. Mills, whose wife contributed 'The Arizona Fleet' article to the July 1941 issue of the Neptune, is a member of the department of English of the University of Oregon.

Robert H. I. Goddard, Jr., a member of the firm of Goddard Brothers of Providence, Rhode Island, contributes the fourth of a series of histories of present-day coasting schooners.

Book Reviews

ALLAN B. COLE, Ed., With Perry in Japan; the diary of Edward Yorke McCauley (Princeton: Princeton University Press, 1942). 6" x 9", cloth. 126 pp. \$2.50.

Edward Yorke McCauley (1827-1894), Passed Midshipman, U.S.N., sailed from the Delaware in February 1853 aboard the U.S.S. *Powhatan* (steam sloop-of-war). His ship was under orders to join Commodore Matthew Calbraith Perry in his mission to establish satisfactory relations between the United States and Japan. A vigorous young officer of twenty-five, he had hopes of a fight before his cruise to the Orient was over. Going out by way of the Cape of Good Hope, the *Powhatan* found Perry at Hongkong, and served as his flagship during a portion of the second visit to Japan in 1854. McCauley's hoped-for fight never materialized, and he regarded the cruise as hardly worth while as far as he was concerned. He did keep a journal however, and it is this amusing and revealing document which has been edited by Allan B. Cole of the Oberlin College history faculty and published by the Princeton University Press.

The journal covers the period from 13 February 1853 until 10 June 1854, thus closing over a year before McCauley returned to the United States. Written in lively, humorous style, McCauley's account is extremely pleasant reading in addition to providing an interesting account of life at sea and of the ports visited by the *Powhatan*. The description of the operation of an early steam man-of-war, the quasidiplomatic visit to the rajah of Bunai on the northern coast of Borneo, information included relative to mercantile activity in the Orient, and especially the account of the visit to Japan are of especial significance. McCauley expresses the point of view of an American naval officer at the high tide of American optimism and expansionist enthusiasm. His attitude of condescension and complete disregard for the traditions and feelings of Orientals is well worth noting.

The journal has been carefully transcribed in full from the original in the New York Historical Society. In the introduction, the editor has gathered biographical notes on McCauley as well as placing the journal in its proper historical setting with an admirable essay on relations between Japan and the west prior to the Perry mission, and the steps leading up to that enterprise. There are informative footnotes, but these are used sparingly enough not to impede the flow of McCauley's narrative. The sketches by McCauley which are reproduced in the book are disappointing.

Coming at a time when some of the fruits of Perry's mission to Japan are particularly apparent, this book adds valuable insight into the conditions under which American-Japanese relations were begun as well as giving a vivid picture of a manof-war's cruise into far seas in the 1850's.

CAPTAIN DUDLEY W. KNOX, U.S.N. (Ret.), Editor, Naval Documents Related to the United States Wars with the Barbary Powers. Volume IV, Naval Operations, April to September 6, 1804. (Washington: Government Printing Office, 1942). 6" x 9", cloth. xii + 587 pages, illustrated, maps, index. \$4.00.

The fourth volume of documents on naval operations in the Barbary Wars covers the late spring and summer of 1804. It is especially noteworthy for its full coverage of Commodore Preble's attacks on Tripoli in August. This was the first instance in American naval history of the employment of relatively large forces in battle. Routine blockading operations, action against Tripolitan commerce, Somers's attempt to destroy shipping by blowing up the *Intrepid* in the harbor of Tripoli, and negotiations for the ransom of Captain Bainbridge and his crew are also illustrated by the documents published. As in previous volumes, the maps and illustrations have been chosen with care and after a wide survey of materials available. The extensive index is designed to serve as an analytical guide to the documents as well as to aid in locating specific references.

J. E. WECKLER, Jr., Polynesians Explorers of the Pacific (Washington: The Smithsonian Institution, 1943). 6" x 9", paper, iv + 77 pages, 20 plates, map.

From the days of the early Pacific explorers to the most recent pre-war globe trotter, every sort of traveler has written his piecemeal account of the Polynesians. Traders have added their tales of the region, missionaries have bewailed the heathens' lack of piety and morals. Besides this varied literature, anthropologists have produced a mass of studies, along with speculations, on the origin of the Polynesians and various aspects of their culture. In spite of all this, until now there has not appeared for the casually interested reader any short, accurate, general account of the probable origin, history, and present condition of the natives of this area. This small book by Mr. Weckler, published as Number Six of the War Background Studies by the Smithsonian Institution, admirably fills the gap at a time when there is much popular interest in the region.

Of most interest to readers of Neptune is the first section of the book containing an account of the long voyages and the skill in navigation of the Polynesians in pre-European times. Although there are several longer and more detailed descriptions of these activities, this short, accurate, and easily available summary was well worth

publishing just now when time is at a premium.